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For the Experimenter and Radio Enthusiast

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6000 Kc.	7033 Kc.	7175 Kc.	8183.5 Kc.
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WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours **EST**, 7146 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intrastate working frequency, 7125 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3573 and 7146 Kc. and re-broadcast on 50 and 144 Mc. Intrastate working frequency 7135 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 7146 and 14342 Kc. 7065 Kc. channel is used from 0930 to 1030 hours each Sunday for the W.I.A. country hook-up. No frequency checks available.

VK5WI: Sundays, 1000 hours SAST, on 7146 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7146 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7146 Kc. and 146.5 Mc. No frequency checks are available.

AMATEUR RADIO

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EDITORIAL

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"I WAS TELEVISED IN 1952"

Twenty years from now—maybe less, maybe more—thousands of Australian people can cast their minds back to a crowded, noisy, echoing building, where children, along with their parents, enjoyed and were intrigued by an "All Hobbies Exhibition" such as they had never seen before.

At this time, when Television will probably be as commonplace as ordinary amplitude modulated broadcast reception is today, these same people will be telling their children and grand-children, "I was televised in 1952."

This fact in itself was probably not unique because many Australian people saw themselves televised as far back as 1949. But what was unique is the fact that the television equipment with which they were televised was Amateur equipment; the first known Amateur television equipment in Australia.

This was a working exhibit at the Exhibition, completely home-built and installed by Len Moncur, VK3LN, on the stand of the Wireless Institute of Australia, Victorian Division.

As far back as radio goes, the Amateur has been in the forefront in experimenting; from the broadcast frequencies to the shortwave frequencies, from the shortwave frequencies to the very high frequencies, from the very high frequencies to the ultra high frequencies, the Amateur has shown his ability to pioneer the unknown. And now an Amateur has shown, with limited knowledge and equipment, his ability to experiment in the field of television. Admittedly the equipment was relatively simple 130 line television on a closed circuit, but given the opportunity, the availability of equipment, the authority to actually transmit the images, there is not a shadow of doubt that the Amateur could continue to improve on this as he has done in the past with other forms of transmission and experimentation.

One day television will come to Australia with all its requirements of highly skilled technicians and operators. The British Post Office has seen fit to license Amateurs in the United Kingdom to conduct Amateur television transmissions in the u.h.f. spectrum, and already two Amateurs have created a milestone in the history of Amateur Radio by successfully conducting the first two-way Amateur television QSO.

The Wireless Institute of Australia is negotiating with the Postmaster-General's Department for permission for Australian Amateurs to conduct television transmissions. The Department would do well to appreciate the great asset of having even a small percentage of the 3,000 odd licensed Amateurs of Australia interested in television, because from the ranks of the Amateurs will come many of the skilled technicians and operators the television industry will ultimately require.

The 625 line television expected in Australia with its inherent complicated circuitry will be far removed from the simple television seen in Melbourne in 1952, but the basic fundamentals must still be understood. What better opportunity is there to educate manpower than to give the Amateurs an early chance to study and experiment?

FEDERAL EXECUTIVE.

THE CONTENTS . . .

A Unique Crystal Converter for 50 and 144 Mc.

BY C. D. L. TILBROOK,* VK5GL

With the growing interest for v.h.f. experimenting, comes the desire for a receiver capable of doing justice to the bands allocated above 28 Mc. It is quite apparent also that the 6 and 2 metre bands are receiving much more attention for local working, and results obtained with good equipment outpace the lower frequencies for this purpose. The writer has used this type of converter on 28, 50, 144 and 288 Mc., and has no desire to revert to the ordinary type of converter after having appreciated the following features:—

- Set the receiver on a known frequency and wait for that station to come up.
- Read c.w. on 6, 2 and 1 metre with a note like that from an 80 metre crystal transmitter.
- Tune simultaneously, if desired, on the same dial the entire 6 and 2 metre bands.
- Use one good dial (which everybody should have on the station receiver) to tune v.h.f. bands.
- Use the calibrations on the station receiver to read direct in the frequency without reference to a chart or extra dial.
- Listen to more than one station on different frequencies in the same band simultaneously (with the aid of another low frequency receiver).
- Use the transmitter as the local oscillator for duplex working, thus eliminating "birdies."

The circuit shown herewith was designed with these points in mind and although a dual unit is described, the principles are the same for single band use.

CIRCUIT

The circuit in general can be described as a push-pull neutralised triode r.f. stage, push push triode mixer, followed by a cathode follower and a fixed crystal oscillator and multipliers. The oscillator can be of the usual tritet type or can incorporate an overtone type oscillator if desired.

In the circuit detailed, the tritet was chosen as it is more readily adapted to experimenting with different crystal frequencies to give various effects which will be described later.

MAIN RECEIVER

It is essential, of course, that the receiver to which the converter is coupled, has a good dial, good frequency stability, and if maximum advantage is to be had from the converter, a dial calibrated in 100 Kc. steps or better. Between 3 and 7 Mc., drift in the main receiver will, of course, reflect in the converter's performance, but not to such a degree as would be apparent on a variable oscillator type of converter on the v.h.f.

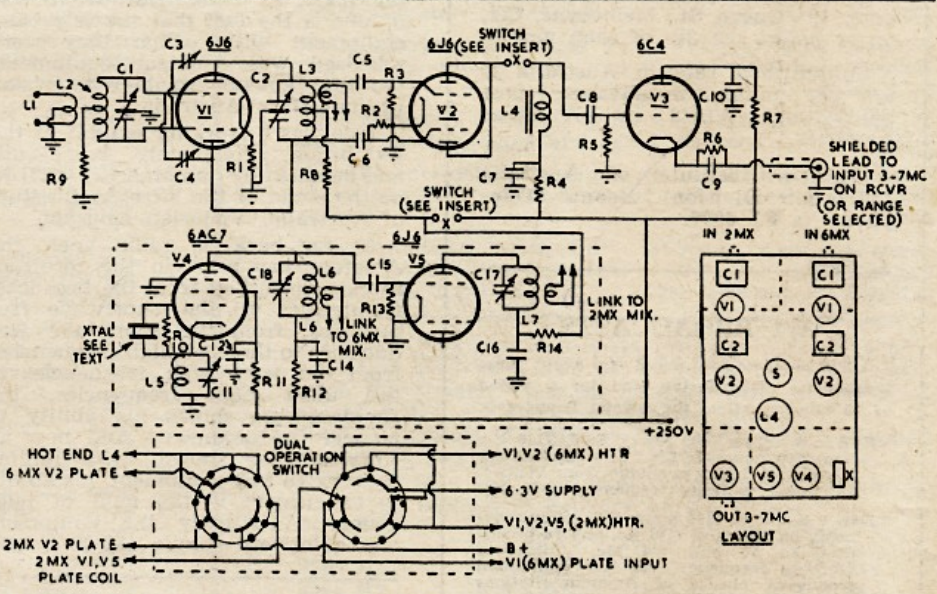
* C/o. Gerard & Goodman Ltd., 192-196 Rundle Street, Adelaide, S.A.

PRINCIPLE OF OPERATION

To cover briefly the principle of operation, let us take as an example the standard superhetrodyne. In this we have (a) a **fixed** i.f. frequency, say 455 Kc.; (b) a **variable** oscillator to create the difference or sum, and (c) the **fixed** station to which we wish to listen. Here we vary the tuneable oscillator to be plus 455 Kc. on to say 1,000 Kc. = 1455 Kc., or minus 455 Kc. from 1,000 Kc. = 545 Kc. By changing things around we could have a fixed or crystal oscillator on either 1455 Kc. or 545 Kc. with the input to the mixer tuned to 1,000 Kc. and a fixed i.f. frequency of 455 Kc. This would give the same result as the previous arrangement. Now if we could tune the i.f. frequency to 465 Kc. using the oscillator fixed at 545 Kc., we would then receive a signal operating on 1010 Kc., or by tuning the i.f. to 445 Kc., we would receive a station on 990 Kc. By using the oscillator fixed at 1455 Kc., we would get the same effect in reverse, e.g. to tune a station higher in frequency than 1,000 Kc., you would need to increase capacity (tune away from the local oscillator 1455 Kc.). For many obvious reasons this arrangement would not be very practical, as we are already receiving the benefit of tuning at low frequencies. Besides this, if the low frequency local oscillator of say 100 Kc. was used, a carrier would appear every 100 Kc. on the tuning dial unless very strenuous efforts were made to eliminate them.

Let us take a more practical example to suit the Amateur bands based on the above principles. Taking a mixer oscillator combination, suppose we have the oscillator or output of a multiplier on 47 Mc., tune the output of the mixer to a 3 Mc. channel. If a carrier was running right on 50 Mc., a beat will be set up by the difference between the 47 Mc. local oscillator and the signal 50 Mc. = 3 Mc. If the local oscillator was adjusted for 48 Mc. under the same conditions by changing the crystal, the beat will be at 2 Mc. and so on. By the same reasoning, if, when using the 47 Mc. oscillator, a signal comes up on 51 Mc., a beat of 4 Mc. with the incoming signal will be set up.

It can be seen from the above that by tuning the output of the mixer between 3 and 4 Mc., a frequency tuned on 3.1 Mc. would be equivalent to an input frequency of 50.1. 3.2 = 50.2, and so on throughout the entire 4 Mc. of tuning from 3 to 7 Mc. It is of course necessary to trim up the mixer and r.f. stage input for maximum sensitivity, but



C1, C2—8 x 8 pF. butterfly (Eddystone Cat. No. 739).
C3, C4—See text (neutralising conds.).
C5, C6—68 pF. ceramic.
C7, C10, C12, C14—0.01 uF. mica.
C8—500 pF.
C9, C16—0.001 uF. mica.
C11—60 or 100 pF. variable midget.
C13—25 pF. variable midget.
C15—50 pF.
C17—10 pF. variable midget.
R1—100 ohms, ½ w.
R2, R3—1.5 megohms, ½ w.
R4—10,000 ohms, 1 w.
R5—5,000 ohms, ½ w.
R6, R7—1,000 ohms, 1 w.
R8—20,000 ohms, 2 w.
R9—100,000 ohms, ½ w.
R10—15,000 ohms, ½ w.
R11—100,000 ohms, 1 w.
R12, R14—30,000 ohms, 1 w.
R13—75,000 ohms, ½ w.

6J6 Socket Connections—
Pin 1—Plate No. 1.
Pin 2—Plate No. 2.
Pin 3—Heater.
Pin 4—Heater.
Pin 5—Grid No. 2.
Pin 6—Grid No. 1.
Pin 7—Cathode.

this is reasonably broad and needs only a plain knob adjustment.

It is not absolutely necessary to use the range 3-7 Mc. when building single band units, but with the dual unit described, it is essential as by adding a trebler to the 47 Mc. output of the local oscillator, we get a frequency of 141 Mc., just 3 Mc. away from 144 Mc. It is this fact that allows both bands to be tuned simultaneously. If it is desired with single units to use a different i.f. tuning channel, it is only necessary to select the range desired for tuning, say 7-11 Mc. and fix the local oscillator at a frequency equal to the difference between the lowest signal frequency 50 Mc. and 7 Mc. = 43 Mc.

Here a word of warning can be added on the use of overtone type oscillators. A crystal with a fundamental frequency of 8.6 Mc. will not give exactly 43 Mc. on the fifth overtone, but in most cases will be slightly lower. When "locking" this type of oscillator, do not listen on the fundamental frequency of crystal, but on the harmonic on which the output is required. The accuracy of the crystal used in these types of converters is most important if calibration is required to be on the dot, especially on the 144 Mc. unit.

CONSTRUCTION DETAILS

It is assumed that anyone considering the construction of a converter of this type would be conversant with the finer details of construction. Usual v.h.f. wiring practices and mounting of components is the main point to watch.

Any chassis layout can be selected, but the one suggested on the circuit lends itself to short leads and good symmetry where it is required most—in the v.h.f. circuits.

It is a good idea to start the construction by building the complete oscillator section, making sure that output is obtained on 47 and 141 Mc. This can be best verified by the old reliable absorption type wavemeter, as it is quite easy to pick the wrong harmonic when first tuning up.

Next is the cathode follower which is quite straightforward, the output of which is fed into a shielded outlet. The Pye co-axial connectors available from disposals are excellent for this purpose.

After this has been finished, it is recommended that the 50 Mc. "front end" be completed. When the mixer is finished, signals should be heard without the r.f. stage if the aerial is coupled to the mixer input coil. This will enable adjustments to be made in preparation to neutralising the r.f. stage. A strong six metre signal should be audible even if the coil is only somewhere near correct. Slight pruning and adjustment will put the resonance point in the correct place without the worry of the station shifting about by coil adjustments.

The same action should then be carried out on the r.f. stage, adjusting aerial coupling, etc., for maximum performance. It is suggested that the value of R8 be increased to around 50K ohm during the neutralising process and when satisfactory neutralising has been effected, the correct voltage be applied.

The link from the oscillator to mixer consists of one turn close coupled to the cold end of the 47 Mc. plate coil and one turn close coupled to the centre of the mixer input coil. The same applies to the 141 Mc. multiplier to the 2 metre mixer.

The inductance L4 in the plate circuit of the mixer is a broadly resonant coil slug-tuned to approximately 3 or 4 Mc. Although a disposals 1600 Kc. i.f. transformer with condensers removed from across the winding was used in the original model, the same effect can be had by using the grid coil of a standard broadcast aerial or r.f. coil. This is roughly resonant around 3½ Megs., but is not critical, however, and is really the only "broadband" part of the converter.

CRYSTAL OSCILLATOR

Many combinations of fundamental crystal frequencies can be used. Originally 9.4 Mc. was used and later 11.75 Mc., as easy 6 and 2 metre operation can be obtained on the same tuning range. There is nothing against using a crystal of 7.8333 as the sixth harmonic will be on 47 Mc. An overtone oscillator operating on the third can be used to advantage here as it is only necessary to double once to get to 47 Mc. The writer often uses an 8 Mc. crystal plugged into the 9.4 Mc. crystal socket without any adjustment to tune the 50 Mc. band from 2 to 6 Mc. In fact as the 8 Mc. crystal multiplies to 144 Mc., good reception can be obtained on 50 Mc. without any crystal in the receiver at all with the 144 Mc. transmitter on. The beat is produced between the 48 Mc. multiplier of the 144 Mc. transmitter and the 6 metre band tuned on the 2 to 6 Mc. tuning unit.

A crystal with a frequency of 12.3625 Mc. plugged into the socket without any other alteration to the converter, except feeding the output into the aerial terminal, allows the tuning of the first megacycle of the 50 Mc. band to be tuned on a broadcast receiver, 550-1600 Kc. This is worthy of consideration from a mobile point of view, using the car radio dial for easy tuning.

Many other combinations can be worked out to suit special requirements, but it is necessary to watch that harmonics do not fall in the band to be tuned.

NEUTRALISING

The condensers used for neutralising the 6J6 r.f. stages appear complicated, but in effect are quite simple. The writer used a ceramic strip which conveniently had 4 holes in the right place and brass plates about the size of a threepenny piece were fixed to these. One of the plates was fixed off centre to an ⅛" brass bolt through the ceramic strip, thus allowing it to slide across and about 1/32" from the fixed plate. This small unit was mounted to the shield under the chassis between the r.f. and mixer stages, making possible very short symmetrical leads to connect to grids and opposite plates of the 6J6 r.f. stage.

There are, of course, many other ways of neutralising. One popular idea is to use a short piece of 70 ohm twin lead acting as a small condenser and cutting off a piece at a time until the correct neutralising has been obtained.

If a transmitter is available, neutralising can be accomplished very easily by inserting a meter in the c.t. of the input coil of the 6J6 r.f. stage, and very loosely coupling to the transmitter to give a grid-current reading. Tuning the plate condenser will show a dip in the "grid" meter if not correctly neutralised and adjustments can be carried out to obtain the desired effect. Another method is to use a signal on the band with the filament of the 6J6 open circuit. Tune the neutralising condensers for minimum signal. If no signal is available, "cut and try" methods will eventually remove all sign of oscillations when the grid or plate condensers are varied.

MIXER-OSCILLATOR COUPLING

In the first instance, the link which connects a single turn around the cold end of the oscillator plate coil to one around the centre of the mixer input coil was switched, but it was found that detuning of the circuit was apparent and affected the drive to the tripler, making it necessary to adjust when switching between 6 and 2 metres. No detrimental effect, however, was noticed when these links were left connected and tuning of the oscillator and multiplier circuits was not affected.

THE CHANGEOVER SWITCH

It can readily be appreciated from the circuit that apart from the plates of the mixer which are at a low frequency anyway, the switching is only in power supply circuits, doing away with the trouble producing r.f. switch contacts. The rather complicated looking design is only necessary if simultaneous tuning of both bands is contemplated. If only 6 or 2 metres are to be tuned alternately, a much simpler arrangement would be a 2 position 3 pole switch, or if you don't mind the extra filaments running (enabling quick switchover), a 2 position 2 pole switch is sufficient. In the one described, the filaments of the section not in use are turned off. The plate connection from L4 and the h.t. to r.f. stage and 141 Mc. multiplier are switched in their correct sequence.

Of course if the converter is to be made for one band only, no switch is required at all.

COIL DATA

50 Mc.:—

L1—2 turns coupled to centre of L2.
L2—8 turns No. 16, ¾" diam., ¾" long.
L3—8 turns No. 16, ¾" diam., ¾" long.
L4—See text.
L5—18 turns No. 18, ½" diam., 1" long.
L6—9 turns No. 18, ½" diam., 1" long.

144 Mc.:—

L1—2 turns coupled to centre of L2.
L2—4 turns No. 16, ½" diam., ½" long.
L3—3 turns No. 16, ½" diam., ½" long.
L4—See text.
L5—18 turns No. 18, ½" diam., 1" long.
L6—9 turns No. 18, ½" diam., 1" long.
L7—4 turns No. 16, ½" diam., ½" long.

OTHER APPLICATIONS

A unit similarly constructed except that it uses an overtone oscillator, giving an output on 25 Mc. from a 6C5, gives excellent results on the 28 Mc. band using the range 3 to 5 Mc. for tuning.

The 288 Mc. unit uses two 6J6s in the oscillator section—overtone oscillator using third overtone of a 10.55 Mc. crystal suitably ground to give 31.666 Mc.—trebling in the second half of 6J6 to 95 Mc. and driving a push pull 6J6

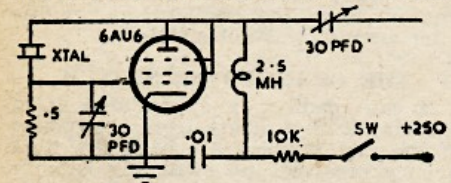
(Continued on Page 4)

A Crystal Marker for Amateur Receivers

BY C. A. CULLINAN,* VK7XW

Readers of "QST" and "CQ" may have noticed a tendency by some manufacturers of communications receivers to include a crystal marker. At first the use of such a marker may not appear to justify its existence, but those Amateurs who have included them are well aware of their advantages. The most obvious is that of checking the calibration of the receiver, or v.f.o., at any time without the necessity of setting up signal generators, etc.

The marker to be described was included in VK7XW's receiver quite a while ago and has repeatedly proved its work. Basically a 6AU6 valve is employed as a Pierce oscillator. The Pierce was chosen as it does not require many parts, will oscillate with almost any crystal and is rich in harmonics.



Normally a 3.5 Mc. crystal is used, but the marker works beautifully with 200 Kc., 1,000 Kc., 3.5 Mc. and 8 Mc. crystals which are available. Coupling into the receiver is via two inches of wire.

* 64 Lawrence Vale Road, Launceston.

The trimmer condenser between grid and ground is absolutely necessary and may be used to obtain a vernier adjustment of frequency. If the crystal is a few cycles high in frequency it can be brought to dead zero beat on exact frequency.

However, this is not usually necessary unless a precision crystal is used as the usual run of crystals will shift slightly as they warm up and with changes in ambient temperature.

Anyhow, try one in your receiver and you will wonder how you got on without it before.

— . . . —

THAT 21 Mc. ANTENNA

Now that we have the 21 Mc. band another antenna is required. Quite a number will prefer beams, which on this band are not too large and can be erected fairly easily, but for the Amateur who does not want to put up a beam or a special antenna, what about the 7 Mc. dipole?

Many of us use a simple half-wave dipole fed in the centre with 75 ohm or 50 ohm coaxial cable. This aerial will operate very nicely as three half-waves on 21 Mc. The radiation pattern is a four lobe field with the major lobes towards the ends of the antenna. A 40 metre zepp will operate equally well on the 21 Mc. band.—VK2VW.

UNIQUE CRYSTAL CONVERTER FOR 50 AND 144 Mc.

(Continued from Page 3)

trebler to 285 Mc.—just 3 Mc. away from 288 Mc. The rest of the design is similar to that described above.

CONCLUSION

Earlier in this article it was mentioned that it was possible to listen to more than one station at a time through the same converter. It can be seen that if one or more extra receivers tuning the range 3 to 7 Mc. having their inputs suitably connected to the cathode follower output of the converter, other stations on the same band could be tuned independently. This has a great advantage in that it enables a watch to be kept on the band while in contact with another station. If, as an alternative, the i.f. tuning channel was the broadcast range, as many b.c. sets as available in the room would receive as many independent stations. This system, in restricted form, can be used to advantage for group monitoring purposes or for cross-band v.h.f. hook-ups. If you are located near a strong local broadcast station, certain spots on the band may be unuseable due to broadcast signals leaking through that channel.

These suggestions have been mentioned only as a matter of interest. Perhaps many other applications can be found and individual modifications made in design to suit particular applications.

A Simple 80 Metre Transmitter

BY VAUGHAN WILSON,* VK2VW

With the Remembrance Day Contest looming in the offing and a study of the Ionospheric Predictions showed that the 80 metre band would provide most of the points during the hours of darkness, the writer decided that it was time to do something about a transmitter for that band.

A certain amount of thought was given to the matter and it was decided that the following requirements would have to be met:—

1. Funds being low, the transmitter would have to come out of the junk box.
2. The transmitter would have to be simple, and yet capable of 100 watts input.
3. As space was not available to erect a half-wave antenna, the transmitter would have to load satisfactorily into a short antenna without complicated aerial couplings units.

A few minutes sketching on a piece of paper evolved the circuit shown which would meet requirements two and three and a search of the junk box proved that requirement one could also be met.

In the writer's case the existing power supply and modulator were used and these are not shown in the circuit diagram. If you are starting off from scratch, any conventional power supply capable of delivering 500 volts at 250 Ma. and a modulator capable of 50 watts of audio will do the job. There are plenty of both described in the various handbooks.

The r.f. section of the transmitter is quite straightforward and no trouble should be experienced in getting it going.

The oscillator may be crystal controlled or alternatively the oscillator stage may be used as a buffer when v.f.o. control is desired. The method of coupling the v.f.o. to the buffer stage is of interest.

In the shack here the v.f.o. is about ten feet away from the transmitter and is coupled via a length of 70 ohm coaxial cable. The normal method of coupling a v.f.o. is to a tuned grid circuit with small link coils, but in this case the output of the v.f.o. is on 80 metres and it was thought that a tuned grid and a tuned plate circuit was asking for trouble.

In the circuit shown, the 6V6 buffer operates as a grounded grid stage and will not oscillate. The r.f. from the v.f.o. is coupled into the cathode circuit across a resistor which terminates the characteristic impedance of the co-axial cable. The stage has some gain, quite sufficient to drive the 807s to 10 Ma. grid current. The total cathode current of the 6V6 is 35 Ma. with a plate voltage of 250 and a screen voltage of 200.

Precautions were taken against parasitics in the p.a. stage as a matter of course. It may work without the suppressors but it is advisable to include them to be on the safe side.

The p.a. output circuit is a little unconventional, but it works very efficiently and has the advantage that it will load satisfactorily into any load impedance from about 2 ohms to 100 ohms, which means almost any piece of wire up to about five-eighths of a wave long.

The coil is one of the revolving type taken from a piece of disposals equipment. Most junk boxes contain at least one. About 20 turns are all that are necessary.

Tuning procedure is simple. With the power on and the oscillator and/or buffer tuned to resonance, rotate the coil slowly, at the same time swinging the tuning condenser through its range until a setting is found where the plate current dips. This indicates that the tank circuit and antenna are at resonance.

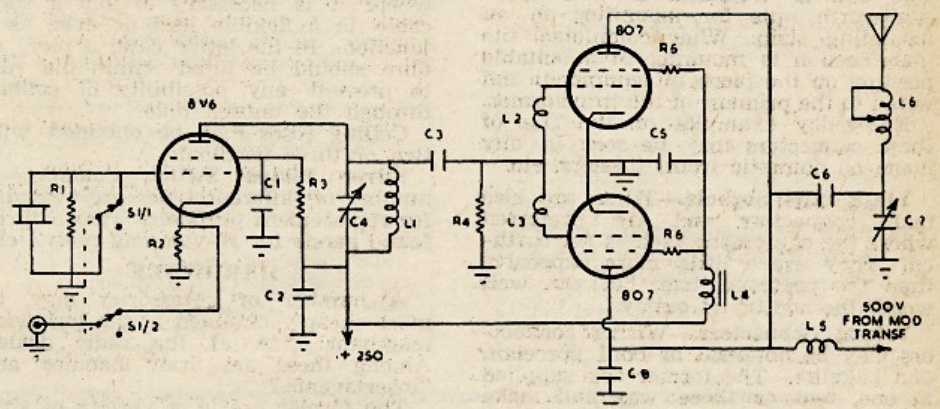
Now adjust the loading by means of slight variations of the coil, keeping the circuit at resonance by means of the condenser until the correct plate current is obtained. The transmitter is ready for use.

The efficiency of the aerial varies with length, naturally the shorter lengths being most inefficient, but it was found that six feet of wire would radiate a signal strong enough to get S9 from VK3-4-5.

This type of tank circuit, which is an adaption of the familiar Collins Pi Coupler, would be ideal for mobile or portable equipment.

Typical meter readings obtained are shown below:

6V6 Cathode Current	35 Ma.
P.A. Plate Current	200 Ma.
P.A. Plate Volts	500 volts
P.A. Grid Current	10 Ma.



S1—2 position 2 section switch.
R1—50,000 ohm, 1 w.
R2—75 ohm carbon.
R3—10,000 ohm, 5 w.
R4—15,000 ohm, 2 w.
R5, R6—100 ohm carbon.
C1, C2—0.01 uF. 600 v.w.
C3—100 pF. 600 v.w.
C4—150 pF. variable.
C5—0.002 uF. 600 v.w.
C6, C8—0.002 uF. 1,000 v.w.
C7—150 pF. variable.
L1—30 turns 1" diam., spaced diam. of wire—20 s.w.g.
L2, L3—10 turns 24 s.w.g. on ½ watt resistor.
L4—30 henry filter coke.
L5—2.5 millihenry R.F.C.
L6—Roller-type coil, about 20 turns 3" diam.

* 26 Wilson Street, Maroubra, N.S.W.

C.W. Ratings of Some Receiving Type Tubes

The newcomer to Amateur ranks sometimes finds himself in a quandry in establishing ratings for receiving type valves when used for transmitting purposes. Therefore the following list, abstracted from "Radiotronics" No. 136, should be of inteest as it shows the maximum ratings in c.w. service. In all cases, the maximum value of the grid resistor is 100,000 ohms. The power output is the valve output based on 70 per cent. plate efficiency, whilst the frequency rating is for full power output and input.—VK7XW.

Valve Type	Max. Plate Volts	Max. Screen Volts	Max. Grid Volts	Max. Plate Ma.	Max. Screen Ma.	Max. Plate Dissiptn. (Watts)	Max. Screen Dissiptn. (Watts)	Power Output (Watts)	Max. Freq. (Mc.)	Grid-Screen Amp. Factor	Max. Grid Ma.
6AG7	375	250	—75	30	9	9	1.5	7.5	30	22	5
6AK6	375	250	—100	15	4	3.5	1.0	4	60	9.5	3
6C4	300	—	—100	25	—	5	—	5.5	60	—	8
6F6	400	275	—100	50	11	12.5	3	14	30	—	5
6V6GT	350	250	—100	47	7	8	2	11	30	—	5
6L6	400	300	—125	100	12	21	3.5	28	30	—	5
6N7 per sectn	350	—	—100	30	—	5.5	—	7.25	30	—	5

ODDS AND ENDS

BY J. M. COULTER,* VK5JD

Many Amateurs are unaware that a number of articles, designed primarily for other trades, are very easily adapted to their hobby. It is the purpose of these lines to point out a few such items and briefly describe some of their applications.

ELECTRICAL

Appliance Connectors.—These consist of two parts, the male and female. Whilst the female may be a little bulky, it is none the less effective and is much preferred to having long flexible leads attached to power supplies, signal generators, and the like.

Both sections may be purchased but the writer prefers to construct the males from 3/16" brass rod which is cut into lengths of approximately 1¼". One end is threaded to take 5/32" Whitworth nuts for mounting on an insulating strip. When completed, the male section is mounted in a suitable position on the piece of equipment and wired to the primary of the transformer.

Every-day examples of the use of these connectors may be seen in any home on domestic irons, toasters, etc.

Flush Inlet Sockets.—These are also male connectors and are preferred where the equipment itself is not earthed. They are a little more expensive than the previous item, but are well worth the additional outlay.

Wiring Connectors.—Wiring connectors may be obtained in both porcelain and bakelite. The former are supplied in one, two or three way and make excellent terminals for reasonably high voltage power supplies. The construction is such that accidental contact would be impossible.

The bakelite type are supplied in strips with a total of 24 connections. They make ideal terminals for lower voltage power supplies and facilitate inter-wiring of equipment and controls.

T.R.S. Junction Boxes.—These are extremely neat and handy bakelite boxes supplied with two or four terminals. With the cover in position they give complete protection from accidental shorts or shock. An inspection of these boxes will suggest a dozen uses in the Ham shack.

Neutral Links.—As the name implies, they are manufactured for use in the neutral side of the a.c. supply, but many other uses may be found in inter-wiring, etc.

Nipples and Flexible Conduit.—This combination is particularly useful where complete shielding of the a.c. supply is required between power outlet, control panel and transmitter, etc. Whilst this system is to be preferred, the reader is advised to consult the supply authority as there are a number of conditions (which vary from State to State) in regard to a.c. supply wiring.

The nipples have a thread and lock nut at one end for attaching to a cabinet and a clamp at the other to grip the flexible conduit. The proper use of these fittings provides a safe, neat system of wiring the a.c. supply from outlet to equipment.

Switches.—The variety in style and shape of switches is considerable, but there are a number which are particularly useful to the Amateur Radio enthusiast. Among these are the flush-mounting and micro switches.

The former may be mounted behind panels, have greater current rating and are more durable than the toggle switch.

Basically, all micro switches have the same movement, but the actuation differs, making it possible to use them in a number of ways. They may be used as door switches, panel switches, operated by relay or mounted on the side of a telephone switch so that an a.c. line may be made or broken with a number of other low power d.c. circuits.

Ceiling Roses.—These are useful where it is necessary to join a solid cable to a flexible lead or even as a junction. In the latter case, a piece of fibre should be fitted within the rose to prevent any possibility of contact through the unused hole.

Ceiling roses may be obtained with two or three terminals.

Silver Plated Switch Contacts.—A number of different types are available for replacement purposes. They will be found handy for re-vamping relays, etc.

HARDWARE

A number of accessories may be more cheaply obtained at the hardware merchant than at the radio dealer. Among these are draw handles and "insertavents."

The former are in a variety of sizes and styles and in the shack become chassis handles.

The "insertavents" may be described as gadgets for putting the "finish" on ventilating holes. They are a nickel plated circle enclosing a piece of "fly" wire. Backing this, is a serated edge for crimping in position.

TOOLS

The Spring Loaded Punch.—This is an extremely useful tool for "centre-popping" socket holes, etc., as the operation may be done with one hand. Just place the punch in position and "press." There's a click and spot is marked! Provision is made to vary the pressure of the spring for working on different materials.

Abra File.—This tool is about ⅛" in diameter and is designed, together with adaptors, to fit a hack saw frame. It may be used to cut holes of any shape in almost any material such as sheet steel, brass, or aluminium and polystyrene, etc. However, the size of the hole is limited by the clearance of the hack saw frame and the relation of the hole to the edges of the job.

Washer Cutter.—These tools are satisfactory for cutting holes of a half to three inches in diameter in aluminium, copper, etc. With specially hardened cutters, they may be used on steel. Lubrication is most important. Oil should be used freely.

In concluding this brief outline of odds and ends, it is hoped that these tips will prove useful and that others may be encouraged to forward similar ideas.

* 49 Farnham Road, Keswick, Sth. Aus.

AMATEUR CALL SIGNS

FOR MONTH OF SEPTEMBER, 1952

ADDITIONS

VK—

New South Wales

2DP—M. T. Webb, 176 Albion St., Annandale.
2FU—G. Pollock, 116 Smith St., Summer Hill.
2IR—C. E. Bardwell, 33 Moore St., Harbord.
2NV—L. A. Wade, 6 Edgar St., Auburn.
2QL—F. T. Hine, 18 Bridge Road, Homebush.
2APY—F. J. Timmins, Pacific Highway, Stokers Siding.

Victoria

3AC—R. Cameron, 43 Mackay St., Prahran.
3ID—J. A. Elton, 23 Wentworth Av., Canterbury.
3VC—R. K. Wicks, 35 Berry Av., Edithvale.
3ACN—C. N. Stilwell, 283 Boundary St., Bendigo.
3AEJ—O. L. Evans, c/o. Station 3TR, Sale.
3AGQ—G. P. Butler, 70 May Road, Nth. Fitzroy.
3ARO—R. C. Pulford, St. Helena Rd., Greensborough.

South Australia

5DT—B. Hannaford, 3 Russell Av., Hazelwood Park.
5UZ—H. E. E. Brock, 2a Marlborough St., Fullarton.
5YM—G. N. Growden, Wedge Island, via Port Lincoln.
5XN—L. E. Werner, 28 Overland Rd., Croydon Park.

Territories

9YY—A. J. Smith, A.W.A. Aviation Service Depot, Govt. Aerodrome, Lae, N.G.

ALTERATIONS

VK—

New South Wales

2BD—1 Silver Street, Marrickville.
2MQ—12 Clyde Street, Rydalmere.
2OG—Merelyne Ave., West Pennant Hills.
2RQ—6 Pleasant Way, Blakehurst.
2AOQ—Nepean Hotel, Great Western Highway, Emu Plains.
2APA—"Aramel," 384 Norma Road, Palm Beach.
2AQS—Police Station, Delegate.
2ARK—Post Office Residence, Cumnock.
2AVB—Melrose Shoalhaven Street, Kiama.
2AVT—No. 1 Flat, Beach Road, Edgecliffe.
2AWS—Pacific Drive, Port Macquarie.
2AZH—6 Third Avenue, Jannali, Sydney.

Victoria

3DW—Deschamps Street, Lilydale.
3IQ—Rundle Street, Ararat.
3JG—58 Stradbroke Av., Swan Hill. (Postal: c/o. Dept. of Agric., Box 202 Swan Hill).
3SV—Landseer Street, Castlemaine.
3VI—13 Serpentine Street, Surrey Hills.
3VG—7 Templeton Street, Sale.
3WR—45 Darling Street, South Yarra.
3AAM—16 Hawthorn Road, Caulfield.
3AAW—Signals Section, R.A.A.F., Sale.
3ALX—37 Wolesley Grove, Brighton Beach.
3AOC—43 Empress Street, East St. Kilda.
3AOP—46 Heather Street, West Geelong.
3ARL—6 Burnett Street, Mitcham.

Queensland

4GW—Leeson Street, West Bundaberg.
4XF—c/o. R.C.A. Photophone, 173 Ann Street, Brisbane.
4XY—Octantis Street, Coorparoo.

South Australia

5HI—11 Kitchener Avenue, Netherby.
5RO—30 Ryan Ave., Woodville West.
5VJ—Dickens St. (Trust Homes), Port Lincoln.
5VK—Snuggery (P.O. Box 77, Millicent).

Western Australia

6HM—c/o. D.C.A., Cocos Island.
6JN—55 Drummond Street, Bedford Park.

"Amplifiers, the Why and How of Good Amplification"

"Amplifiers, the Why and How of Good Amplification," by Briggs and Garner. We are quite sure that the quest for the perfect amplifier is one which takes the spare time of quite a number of radio enthusiasts, Amateurs included, and therefore we feel that the book mentioned above will be of considerable interest to a great many readers.

The treatment is unusual as in spite of the highly technical nature of the subject, the reader, through the simply worded text and the disarming style of the writer, finds he has negotiated a complicated subject without finding it difficult.

To illustrate the various points under discussion, large numbers of oscillograph photos are provided, which also helps to give a clearer understanding to the reader.

The subjects covered in this book are numerous and every aspect of amplifier design is discussed, always from the point of view of the man in quest of the perfect amplifier. One chapter which impressed me considerably was the one on phase changers. The tabulated data on the various types, their good and bad points, and the best recommended types to use, would be a must for all amplifier enthusiasts.

One could go on mentioning the various chapters in the same terms, for all have a great deal of information in them, but it is suggested that the next time you are at McGill's Agency you take a look through this book, and if you follow the quest for the perfect amplifier, it is our guess that it will be residing on your bookshelf.

Our copy from McGill's Agency, 183 Elizabeth Street, Melbourne, who hold Australian distributing rights for this publication. Price 23/9 and 1/- postage.

Philips' Valve Manual

The new Philips' Valve Manual is a most comprehensive tabulation of all the necessary valve data, and socket connections, completely up to date, and its main value to the Amateur is the fact that it covers both American and Continental types, thereby giving a complete coverage of all types likely to be met with in Australia.

The book is fitted with a spiral spring binding so that it will lay flat at any page, and has a semi-stiff cover. In size and information it is a vast improvement on the previous Philips' valve data book.

We are indebted to McGill's Agency, 183 Elizabeth Street, Melbourne, for our copy. Price 8/6.

TECHNICAL ARTICLES

The Technical Editor reports that the technical articles' bag is very nearly empty, so how about it chaps?

Don't forget the beginners have to be catered for, so articles on beginners' equipment are also welcome.

IDEA FOR BARING PLASTIC INSULATED HOOK-UP WIRE

The usual methods of baring P.V.C. insulated hook-up wire are either to cut the plastic with a knife, which is not only tedious, but often damages the wire strands, or to drag the plastic off with a pair of cutting pliers which leaves a ragged end.

The following method is both quick and effective and leaves a neat end on the plastic.

Twirl the wire against a corner of the bit of a hot soldering iron, so melting a groove in the plastic. The end of the insulation may then be removed generally with a light tug with the fingers or at the most with a pair of pliers.

The finished job will have a slight knob on the end of the plastic and this may be smoothed down with a hot soldering iron if it is a disadvantage.

—D. E. Hosking, VK5DH.

ACCURATE FREQUENCY TRANSMISSIONS FROM VK3WI

The next Accurate Frequency Transmission will take place on Thursday evening, 27th November, 1952, on 7 Mc. Details of the operating procedure and times of operation will be found on page 8 of the January, 1952, issue of this magazine.

1952 REMEMBRANCE DAY CONTEST RESULT

Western Australia Does It!

Congratulations to the Western Australian Division in breaking the iron-like grip on the Remembrance Day Trophy held by the Tasmanian Division for the past three years. There is no doubt that Western Australia worked hard for its comparatively comfortable (sleepless for some) win from Queensland, the efforts of which were none the less meritorious. Tasmania followed in third place and although there was again, marked evidence of good organisation and support within the Division, there was an inadequate number of sufficiently high scores to come out triumphant again.

Although no Divisional organisation as yet exists in the Territory of Papua and New Guinea and thus the entry could not be accepted as competitive, a number of VK9s participated whose scores have been tabulated and a total arrived at in conformity with the rules. Whilst referring to Territories, VK1RG, on Macquarie Island, exchanged serial numbers with many mainland stations, some of whom claimed points for the contact. As the rules as published made no provision for participation by VK1 Amateurs, no points could be allowed. However, the matter of VK1 activity in future R.D. Contests might well receive the attention of Divisions for amendment of the rules as deemed necessary.

As has been found since its inception, the Contest again proved most popular. a total of 418 logs being received as compared with 384 in 1951, 20 of the additional 34 coming from Western Australia. The only other State to show a marked increase in number of logs was Victoria. In individual scores, however, the all-time high total of 664 set by VK6RU in 1951 was topped this year by VK4CB with 784, VK4FP 760, VK7KB 734, VK6RU 728, VK2AHA, and VK6FL 725 and several others. Whilst in no way detracting from the efforts of these Amateurs, the higher scores by comparison with other years are in a way, a measure of the activity. It is interesting to note that the highest scorer used telephony exclusively on 3.5, 7 and 14 Mc. for 297 contacts and managed four hours sleep! VK6FL mustered the highest number of contacts, 302, using c.w. and telephony on 7 and 14 Mc. Listeners' Logs were received from B.E.R.S. 195, Eric Trebilcock, and Mr. F. H. Price.

Little use appears to have been made of the 21 Mc. band although from a perusal of logs, it seems that the band was open during daylight hours for contacts over comparatively long paths, e.g., North Queensland to Tasmania, and East Coast to Western Australia.

With reference to logs, the standard generally was quite high and in some cases, considerable attention had been paid to neatness and accuracy which greatly facilitate the task of the Contest Committee. A number of stations had duplicated QSOs and where points were claimed, the scores were reduced accordingly. Several competitors, some with high scores too, did not show a sub-total of points claimed at the bottom of each page, others did not add them up at all, and one with a considerable number of contacts didn't bother to claim any points!

The success of the Contest is a mark of appreciation for those of our ranks who gave their lives in service to their country during World War II. It is an opportunity to renew old acquaintances, many of whom only appear from year to year in the R.D. and it is not infrequent during the Contest that one hears "see you in twelve months." Some of these old familiar calls have not only been heard in all post-war R.D. Contests, but were entrants in the pre-war Fisk Trophy and more recent All Band Contests.

May the 1953 R.D. Contest be an even bigger success with more entrants and logs from all States—in particular New South Wales and Victoria.

—Federal Contest Committee.

REMAINING SCORES

In addition to the six leading logs from each State, the following were also received to help swell the various States' totals and thus increase the bonus:—

NEW SOUTH WALES

VK2AWU	470	VK2AMB	179	VK2AJO	106
2AYP	441	2GT	177	2XN	94
2GW	431	2EO	175	2AJQ	85
2BO	424	2ASJ	170	2ZQ	83
2ATS	417	2IC	169	2AJL	81
2BQ	366	2AAI	162	2AGT	79
2VW	352	2AHI	148	2APP	78
2ASM	317	2AEN	145	2ACC	77
2OY	314	2ABO	144	2SR	75
2AHM	290	2EL	143	2OW	73
2AAB	279	2QV	142	2ACX	73
2CN	245	2JZ	138	2AAW	68
2ADT	234	2ASW	124	2RA	66
2OA	225	2AVG	120	2SF	63
2XO	197	2AHP	110	2RF	62
2XQ	191	2AVK	109	2ST	62

1952 R.D. CONTEST RESULTS

	VK6	VK4	VK7	VK2	VK3	VK5	VK9
Division	VK6RU 728	VK4CB 784	VK7KB 734	VK2AHA 725	VK3JE 568	VK5FO 557	VK9GW 630
Scores:	6FL 725	4FP 760	7GM 647	2DG 628	3HG 498	5EN 513	9FN 375
	6KU 670	4RT 686	7RK 569	2DO 578	3ADW 491	5KN 413	9WK 245
	6KW 643	4TN 677	7AJ 457	2VN 566	3ALQ 449	5RR 350	9HI 108
	6VM 608	4CC 615	7LJ 455	2WH 557	3AHH 448	5HI 347	9ML 81
	6DX 603	4KW 554	7JD 333	2ANN 535	3FH 440	5WO 340	9DT 16
Aggregate:	3977	4076	3195	3589	2894	2520	1455
Average:	662.8	679.3	532.5	598.2	482.3	420.0	242.5
No. of Logs:	50	54	45	83	103	76	7
No. of Licencees:	181	303	105	1028	955	330	36
Bonus:	183.1	121.0	228.3	48.4	52.0	96.7	47.2
Total:	845.9	800.3	760.8	646.6	534.3	516.7	289.7

NEW SOUTH WALES (Continued)

VK2HC	59	VK2QZ	46	VK2ANL	32
2AFA	59	2ATM	45	2AJZ	30
2JU	59	2ABB	45	2AAJ	26
2PL	56	2ZC	43	2AXZ	19
2JF	55	2RK	36	2PV	18
2PX	54	2KQ	36	2DI	17
2RM	48	2ANF	36	2HM	17
2HZ	47	2XU	33	2XT	17
2RS	47	2UC	33	2RU	13
2TF	47			2OT	12

VICTORIA

VK3AAP	431	VK3LV	105	VK3ABA	23
3AOW	429	3ABP	105	3DG	23
3ASB	424	3WQ	104	3VZ	22
3IZ	411	3AZK	103	3AHK	22
3PO	410	3JJ	101	3SP	19
3AWW	388	3EO	100	3IK	19
3OM	385	3AJG	98	3QZ	16
3XB	376	3GZ	93	3ZM	15
3ZA	349	3ARV	92	3UG	14
3AVB	279	3IO	89	3LA	14
3RN	279	3ALY	82	3XH	10
3ZO	278	3YW	76	3OJ	8
3AN	257	3ZV	72	3II	8
3AZW	253	3HL	69		
3HE	234	3AMD	68		
3PG	230	3AGF	66		
3YF	229	3EW	64		
3AZV	222	3ADU	61		
3ASG	215	3IJ	59		
3HT	215	3UR	58		
3YV	206	3ED	55		
3ACA	194	3FO	52		
3ND	187	3AT	51		
3AAF	176	3AKW	51		
3SX	168	3ARM	48		
3XU	166	3TB	45		
3ACI	162	3KV	44		
3ANA	149	3YS	42		
3IC	142	3ACJ	41		
3ANS	138	3AJA	38		
3AKO	137	3ALG	37		
3PL	135	3ME	37		
3XD	135	3ALD	36		
3KE	132	3AXC	35		
3XJ	132	3TH	34		
3EB	128	3JI	32		
3AFF	126	3ARL	28		
3AKV	125	3TO	26		
3TI	124	3ADP	26		
3ALP	118	3DP	25		
3ZS	114	3AJU	25		
3AIM	107	3AVM	24		

QUEENSLAND

VK4QL	551	VK4OR	81
4DO	417	4BE	79
4DI	406	4KK	66
4EC	400	4KS	65
4FE	374	4GG	53
4ZB	331	4WD	46
4WF	315	4SN	44
4XG	296	4AW	42
4XR	293	4NG	38
4RH	281	4BG	38
4RL	268	4ZP	37
4PT	256	4CF	33
4EL	237	4FT	32
4XL	216	4AF	32
4CK	187	4SU	28
4JF	174	4PX	23
4FB	160	4HZ	22
4RJ	130	4HD	18
4SF	128	4PD	17
4HW	127	4FJ	14
4HA	108	4ZZ	13
4HH	93	4RW	13
4GA	85	4JO	11
4GH	83	4CZ	10

SOUTH AUSTRALIA

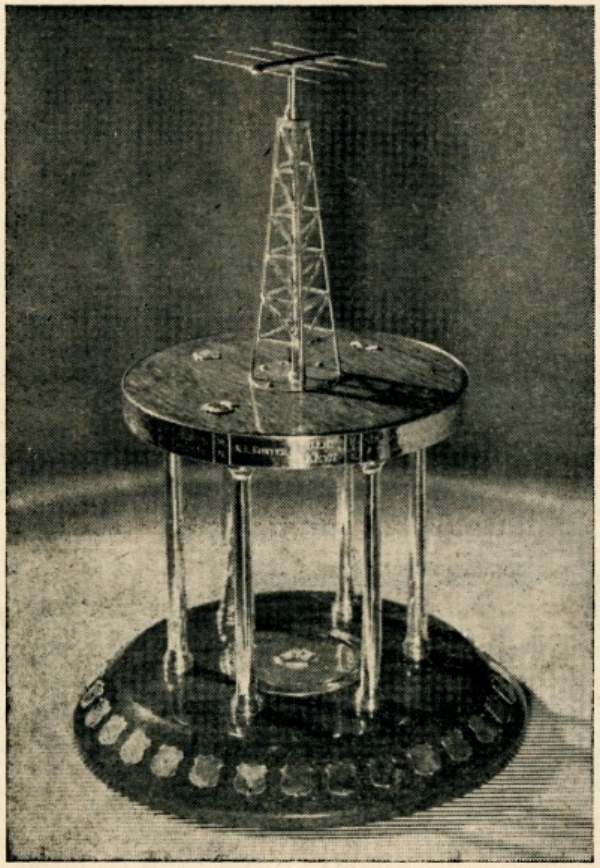
VK5JT	323	VK5EH	104	VK5TL	43
5LC	317	5BY	103	5XU	43
5WY	314	5DF	103	5CJ	39
5AX	301	5GM	103	5YQ	35
5DP	289	5JN	102	5FD	32
5CE	283	5RY	102	5MK	32
5FM	283	5TW	100	5KU	31
5CO	275	5HN	99	5KE	29
5LB	259	5HP	92	5ZL	29
5WQ	259	5RK	86	5PS	27
5XK	256	5AP	83	5WM	27
5DH	246	5JL	81	5CT	24
5LQ	231	5OD	81	5KS	24
5MZ	231	5JK	78	5OZ	22
5CA	217	5PW	76	5JM	18
5LD	216	5AW	69	5KY	16
5MD	188	5TD	65	5EA	14
5GF	172	5JG	63	5MA	11
5OC	147	5OK	58	5ZY	11
5JO	137	5MR	57	5WR	9
5WF	134	5WI	54	5JD	7
5JW	113	5CY	54	5TA	7
5TJ	107	5BZ	52		
5MS	106	5FJ	49		

WESTERN AUSTRALIA

VK6DW	497	VK6BC	55	VK6BO	15
6HK	422	6LL	42	6UF	14
6GU	377	6WZ	34	6DF	14
6EC	355	6AV	30	6TY	13
6DJ	349	6AS	30	6WT	13
6AZ	331	6VK	23	6BG	13
6GA	322	6HS	23	6SR	12
6WW	228	6ZZ	23	6GB	12
6JC	206	6RW	22	6JA	12
6LJ	129	6DU	19	6RS	12
6AR	119	6GH	17	6XG	12
6TK	97	6TB	17	6JK	12
6BO	83	6AG	16	6JS	11
6MB	82	6FT	15	6HR	11
6WM	69			6XF	10

TASMANIA

VK7DZ	328	VK7JT	154	VK7CK	51
7DW	326	7RX	140	7DM	49
7AL	291	7MR	127	7AG	48
7LZ	273	7RY	108	7SA	40
7WA	232	7FJ	83	7SD	39
7YH	180	7RM	75	7PF	34
7KA	173	7AM	70	7BJ	26
7AI	165	7OM	53	7TE	26
7SF	158	7SK	52	7CA	24



Western Australian Division of the W.I.A. wins the Remembrance Day Trophy

TASMANIA (Continued)

VK7WI	23	VK7LE	17	VK7XW	11
7LX	21	7BH	16	7HB	10
7LL	21	7GB	14	7XL	6
7AB	17	7KX	13	7SR	5

NEW GUINEA

VK9XK 12

Logs from VK5BU and VK7BR were not eligible due to insufficient contacts.

Check logs were received from VK6LG, B.E.R.S. 195, and Mr. F. Price, Perth, W.A.

Don't Forget! Closing Date for Copy for January issue is 1st December.

Ross A. Hull Memorial V.H.F. Contest 1952

RULES

1. The Contest will take place in the 50-54 Mc. band and will commence at 0001 hours E.A.S.T. on 20th Dceember, 1952, and will continue until 2359 hours E.A.S.T. hours E.A.S.T., 4th January, 1953.

2. Points may be claimed for contacts outside the competitor's own call area.

3. Only one contact with any one station per twenty-four hours commencing midnight E.A.S.T. to count as a scoring contact.

4. Exchange of a serial number will constitute a contact.

5. The serial number of five or six figures will be made up of the RS (telephony) or RST (telegraphy) reports plus three figures which may commence with any number between 001 and 100 for the first contact and which must increase in value by one for each successive contact, e.g., if the number chosen for the first contact is 050, then the number for the second contact must be 051, for the third 052 and so on. If any contestant reaches 999, then he will start again 001 and continue.

6. Scores will be calculated on a points basis as shown in the table appended.

7. Logs should contain the following information: Date, time (E.A.S.T.), call of station contacted, serial number sent, serial number received, points claimed for the contact, and at the foot of each page total points claimed, and at the end the grand total. Logs should be signed by the competitor, together with a declaration to the effect that the station was operated strictly in accordance with the Rules and spirit of the Contest and that the decision of the Federal Contest Committee shall be final and binding. Logs must be received by the Federal Contest Committee, Box 1734, G.P.O., Sydney, not later than the 25th February, 1953.

8. Entries will be accepted from all States of the Commonwealth and Districts of New Zealand. Check logs from other countries will be appreciated by the Contest Committee.

9. For the purposes of scoring, Northern Territory will count as a separate call area, VK9 will be considered as a State of the Commonwealth, and VK1 (if any activity) as a separate country.

10. The decision of the Federal Contest Committee will be final and binding upon all matters pertaining to this Contest.

11. The regulations governing the control of Amateur Radio in each contestant's country must be observed.

12. **Awards.** The outright winner of the Contest within the Commonwealth of Australia will receive an appropriately inscribed certificate and, in addition, if a financial member of the W.I.A., will hold the Ross A. Hull Memorial Trophy for one year.

The highest scorer in each call area in Australia and New Zealand will be awarded a certificate. In addition, the Federal Contest Committee will have the right to make any additional awards.

	VK2	VK3	VK4	VK5	VK6	VK7	N.T.	VK9	ZL1	ZL2	ZL3	ZL4	Other Countries
VK2	–	5	4	2	10	4	6	10	7	7	7	7	20
VK3	5	–	4	4	9	10	6	11	7	7	7	7	20
VK4	4	4	–	5	11	7	3	7	7	8	8	8	20
VK5	2	4	5	–	7	5	3	10	8	8	8	8	20
VK6	10	9	11	7	–	10	12	14	17	17	17	17	20
VK7	4	10	7	5	10	–	7	12	7	7	7	7	20
N.T.	6	6	3	3	12	7	–	3	15	15	15	15	20
VK9	10	11	7	10	14	12	3	–	12	13	14	15	20
ZL1	7	7	7	8	17	7	15	12	–	4	2	3	20
ZL2	7	7	8	8	17	7	15	13	4	–	4	3	20
ZL3	7	7	8	8	17	7	15	14	2	4	–	4	20
ZL4	7	7	8	8	17	7	15	15	3	3	4	–	20
Other Countries	20	20	20	20	20	20	20	20	20	20	20	20	–

To obtain points per contact, look down the column of your call area until you come to the line of the State contacted. The figure where the two lines intersect is the points score for that contact. For example, VK5 works VK4—points score is 5.

DX NOTES BY VK7RK*

These notes are being written in Tasmania instead of VK4 land. As 4QL explained last month, he is being transferred back to VK2 and I will endeavour to carry on until he can get back on the air again. I hardly think that I could improve on his efforts and will consider the job well done if I can approach his standard. One small addition I will make this month will be to separate the phone listings from the c.w. It may not be quite accurate for this issue as most reports seem to cover both types of emission and I will only separate those given to me as being specifically phone. Might I say, with regard to this and any other aspect of the notes—if you don't like it, please tell me.

The bands seem to me to add up as follows:—

3.5 Mc.: The only reports on this band come from **Eric Trebilcock,** B.E.R.S. 195, who, in an interesting letter, covers DX which almost turns my key green with envy. Those he lists on this band cover SL5BO (1930z), SM5AQV (2045z), DL9VBA, DL9OM, UA2AC, UB5DI, SM7BQH, HB1MG, ZK2AA, UA4KCE, DL9UU, PA0CI, DL7AJ, SM3AOA. From this it appears that the Europeans are really there and it's a matter of going after them. The best I can do is to hear a few Ws on stray evenings.

7 Mc. is providing some of the interest that seems to be fading on 14 and here **Eric** again supplies some very interesting calls heard: IS1FIC, HH2FL, ZS6OW, SP2KGA, SU1HG, SP6RX, HB1MG, HB1KU, UI8AE, FR7ZA (at 2000z in QSO Europe), UC2KAB, PY1AHL (2220z), SP9KKA, 4X4BT, LZ1KAB, 4X4DH, YI2FD, GD3FSS, YI2AM, ZC4XP, SP5AB, UH8KAA, UD6BM, UR2KAA, ZB1HLW, UG6WD, UI8KAA and many calls like G, DL, F, YO, YU, UA, etc. **4QL** evidently managed to squeeze out a few CQs in between packing cases as his efforts netted him ZE2JN*, ZS6AAC*, KP4UW* and W2VFD at 2130z. **2AMB:** OA4ED*, (0700z), CR9AG, LU6WH* and KM6AH/KB6* on Canton. From the sunny State **4XJ** swapped reports with FU8AC*, and VR2 together with lots of W and VE. **3AHH,** who is ex-DL3EC, seems to have brought European QRM with him as Hans complains of it about 2000z to the tune of G, DL, F, I, EA, YU, HB9, OH and FA8 for good measure; broke through the noise and worked OH2YK* and G2RT*. **7RK** found early mornings around 2000z to 2200z good for Europe. Evenings provide Nth. Americans and Pacific stations on most occasions. In general PA0AFN, GI2DHB, OK3OUS, OH5WX, ZB1KQ, HA5KBP, HB9CV, ZS4TX, FA3FM, FA9VN, ZB1KQ, 4X4BX, LZ1KAB.

Phone seems to be occupying more Kc. on this band with reports like these. **3AHH:** HK5ER, OA4R 0500z; **4CW:** DU7SV; **4XJ:** CO2AZ and **2AMB:** CT1QF and HC1FG.

14 Mc.: Eric B.E.R.S.195: VR1A, VP9BG, VR4AE, ZS2MI, EQ3FM, FB8ZZ, TA3AA, HB1JJ/HE, SV1SMX, ZE5JP, FR7ZA, FE8YB, FI8AB, JY1AJ (a "newie" on me), KS6AA, ZC4RS, EK1AO. **4QL** managed such choice morsels as LX1AS, SV0WB, TG9AC*, MF2AG, CT3AE, ZM6AA, HC2OS*, PJ2AD*, FF8AJ*, CE1BD. **4CW:** C3AR*, HS1SD*, ZC5VR*, VP6SD*, YV5AB*, YI2AM, KV4VB, OA4AI, CN8GD, KT1WX, ZC5VR (N. Borneo). Says to watch for a Sth. African operating from St. Helena—80w. c.w. and phone. **4XJ** is doubtful over B1AB* who gave location as Formosa but much happier with calls like ZM6AA*, KB6AX*, DJ1BZ*, CR9AF*, HS1UN*, OK5BG, OQ5EZ, CN8GG and FF8AG. **2AMB:** ZS2BC* 0600z, his total worked now 143. **2ACP:** CT3AA* (Madeira Is.). **3AHH:** LU3GH*, CN8AF*, and HB, SM, F, G, DL, as worked; and OE13HL, ZS1H, YU, I, OH as heard. **7RK:** TA3AA, EI4Y*, CR9AF, KG4TO, HS1SD, VS7NX*, KZ5DE*, OE13HL*, GI 4RY, 4UAJ*, plus the more common ones.

Phone reports cover, from **2AMB:** FF8WC; **3AHH:** HP1CC, KV4BB; and **7RK:** C3AR, VS7WL, VR2CM, VS1AY.

21 Mc. is definitely on the up and up. **4QL:** PA0KX*. **3AHH:** DL7AP at 0900z, also a KA. **4XJ** bagged VQ4HJP*, KH6ANZ*, KH6ARA*, VE7AIH*, W5*, W6* and AD1FEC. **7RK:** ZC4RX* (two successive week-ends), VQ4HJP*, VQ4DO, KH6ARA*, KH6ANZ*, KA2FE* and VS2CR.

28 Mc. a dead loss to everyone except the old die-hard **4XJ:** KH6NES*, KH6FO*, KH6AHU*, W3*, W6* and W4*.

QSLs appear to be as scarce as ice-cream in OQ5 as the only one received here all month was VP7NZ. **Eric,** B.E.R.S. 195, after sorting over LB6XD (Jan Mayen Is.), FB8XX, FB8BB, EA0AB, 3A2AB, VP5BH, VP8AI, 4WIAC, FB8ZZ, ZC4XP, VQ1RF, 3V8AB, FI3AG, W6RMG/HL1, HC6NB, VP7NM, TG9RB, SU1FX, YV5AE, OE13LI, YI3ETQ, TA3FAS, EA6AM, DL1VU (3.5), HB9BX (3.5), SM5AQV (3.5) found he had cards from 210 countries out of 224 heard. That's really some listening OB.

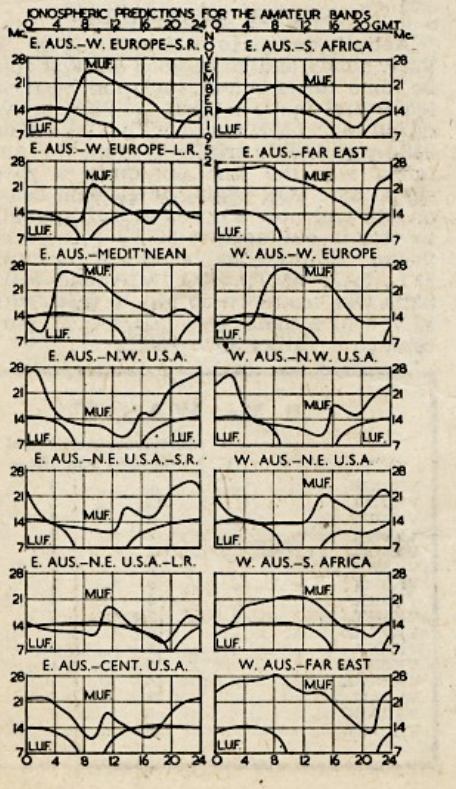
The gen. section is almost non-existent, the only item that comes to mind is the change in call signs for Japan. It appears as though the Jap. nationals are now re-licenced and are operating with JA calls, the occupation troops having gone over to KA.

Some QTHs that may be of interest are: OE13HL, QTH Linz, Austria; QSL via A.P.O. 168, c/o. P.M., N.Y.C. KM6AH/KB6: c/o. C.A.A. Canton Is. KT1WX: B.P.O. 57, Tangier, N. Africa.

From the above reports it seems as though no DX is worked from positions west of Melbourne, but my experience tells me different, and I would much appreciate some dope from the other States, particularly VK6 so as to give a general coverage for these notes and make them interesting. Many thanks to those who contributed this month and please have the necessary here by the end of the month.

* 5 Galvin Street, Launceston, Tasmania.

PREDICTION CHART FOR NOV., 1952



DX C.C. LISTING

PHONE

Call	No.	Ctr.	Call	No.	Ctr.
VK4HR	12	167	VK4JP	8	114
VK3BZ	3	163	VK3AWW	14	112
VK3EE	10	163	VK4DO	20	109
VK3JD	1	155	VK5MS	24	109
VK6RU	2	152	VK4RW	23	104
VK4KS	9	152	VK2ADT	13	102
VK6KW	4	150	VK2AHA	15	102
VK3LN	11	141	VK3HO	25	102
VK4FJ	21	141	VK6PJ	19	101
VK3JE	7	133	VK4RT	22	101
VK4WF	16	130	VK3IG	5	100
VK6DD	6	126	VK3GG	18	100
VK4WJ	17	122			

C.W.

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	207	VK3XK	30	128
VK4HR	8	188	VK4RF	11	125
VK3FH	15	177	VK3YD	27	123
VK4EL	9	167	VK3EK	3	122
VK4FJ	29	165	VK3JI	25	118
VK2EO	2	152	VK3PL	38	117
VK3CN	1	151	VK3HT	37	117
VK2GW	16	151	VK3UM	12	116
VK3CX	26	150	VK3YL	39	115
VK6SA	28	150	VK7LJ	24	114
VK4QL	36	146	VK4DA	7	113
VK3VW	4	143	VK7LZ	17	112
VK2QL	5	142	VK4RC	13	107
VK6RU	18	141	VK6KW	40	104
VK5RX	23	140	VK2YC	34	103
VK3KB	10	138	VK3APA	14	101
VK5FH	31	134	VK3NC	19	101
VK5BO	33	133	VK2OA	32	101
VK4DO	20	129	VK7RK	22	100
VK3JE	21	129	VK2AEZ	35	100

OPEN

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	220	VK2ASW	53	116
VK4HR	7	208	VK3AWW	45	115
VK2NS	16	195	VK3JA	43	114
VK3JE	12	190	VK2ADT	14	113
VK6RU	8	186	VK4RW	52	113
VK4FJ	32	184	VK3PG	47	111
VK3HG	3	171	VK3MM	49	111
VK6KW	13	171	VK4RC	21	110
VK2DI	2	170	VK3ZB	34	110
VK3KX	1	167	VK3HO	38	110
VK4EL	10	167	VK2ZC	25	108
VK4KS	24	167	VK2YL	11	106
VK4DO	15	157	VK3AWN	36	105
VK3LN	29	144	VK2VN	18	104
VK5FL	26	143	VK4UL	27	104
VK3MC	5	139	VK6PJ	44	104
VK3OP	19	137	VK6PW	50	104
VK4WF	40	137	VK2HZ	17	103
VK6DD	22	136	VK7KB	30	103
VK3HT	41	135	VK2TI	37	103
VK2ADE	28	133	VK6DX	42	103
VK9GW	48	133	VK7RK	31	102
VK2AHA	9	128	VK4TY	35	102
VK2AHM	20	125	VK5HI	51	101
VK3JI	33	119	VK2ACX	6	100
VK7LZ	23	116	VK2TG	39	100
VK3VQ	46	116			

FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

VK3 HEARD ON 2 MX. BY ZLs

Keen interest is being displayed in the 2 mx band as reports of amazing distances being covered continue to come in. The latest of these reports concerns the 2 mx signals of VK3RR at Horsham which were heard by ZL3AQ on 2nd October. We are indebted to D. W. Buchanan, ZL3AR, of Ashburton, N.Z., for the following information.

"Thursday, 2nd October, early evening was very warm, calm and pressure was high at 30 inches. 144 Mc. conditions were exceptionally good, the Christchurch boys 50 miles north and the South boys through Temuka, Geraldine to Timaru 50 miles south, simply pounded in although in several instances were running some 15 watts to mod. osc. A signal which hetrodyned ZL3CS on 145.6 Mc. for at least 20 minutes was logged as VK3RR by another local, ZL3AQ, when he signed as Victor King Three Roger Roger at 0807 G.M.T. His signal was steady for a long time at Q5 S5 to S6." (Time and frequency have been checked with 3RR—Ed.)

Also by courtesy of ZL3AR we publish the following list of ZL3 stations active on the 144 Mc. band.

Ashburton—

ZL3AQ: 100w. to p.p. 826s, beam 5 over 5, 144 Mc. crystal.

ZL3AR: 100w. to p.p. 826s, beam 5 over 5, 146.19 Mc. crystal.

ZL3IQ: 70w. to 829, 4 element beam, 145 Mc.

Christchurch—

ZL3LE: 100w. to p.p. 24Gs, 16 element beam, 144.15 Mc.

ZL3KS: 70w. to 829, 4 over 4, 144.4 Mc.

ZL3CS: 70w. to 829, 4 over 4, 145.6 Mc.

ZL3CA: 70w. to p.p. 834s, 4 over 4, 145.5 Mc.

ZL3QW, ZL3QE, ZL3GV, ZL3FM: operate about 15w. to mod. osc. p.p. 7193s.

Geraldine—

ZL3IO: 70w. to p.p. 834s, 16 element, 145 Mc.

Temuka-Timaru—

ZL3LD, ZL3IE, ZL3DY, ZL3KQ: operate mod. osc., about 15w. to p.p. 7193s.

ZL3AR also operates 1,300 ft. up in Foot Hills to Southern Alps under the call ZL3IG with 100w. to p.p. 826s, 5 over 5 beam, on 146.1 Mc.

Recently returned from a trip to England, VK7BQ tells this story about the ingenuity of a group of G 144 Mc. operators.

It seems that this group had considerable difficulty in working into London due to an intervening range of mountains, until a parasitic array was erected on the highest point of the aforementioned mountain range. This array was then shock excited by directing the transmitting stations' antennae at it, result! Consistently reliable contacts with London stations. With due respect to the G Hams concerned it should be mentioned here that this idea was suggested to the writer some 12 months or so ago by VK3RR as a means of working from Horsham to Melbourne under similar conditions. You win Dick!

NEW SOUTH WALES

The last meeting of the V.h.f. Group at Science House was a huge success and everybody thanks Barry 2ABB for his fine lecture on "Crystal Control Converts." A field day of some importance was held on the week-end of 4th-5th October and at least nine parties planned to man the mountain tops near and far. Much time and feverish effort was spent making ready for the big event. Parties participating were 2ANF, 2HL, 2AST, 2OA, 2AOA, 2PN (Tumut), and 2NV. We understand that the Canberra Radio Club and the Royal Naval Radio Club participated in the field, good work boys.

We wish to congratulate Hugo 2WH and 2PN for their recent effort in two-way contact on 144 between Forbes and Tumut, a distance of 138 miles as the crow flies. They have tried a long time for this to happen, and have succeeded at last—good work boys.

Although 144 Mc. has been quiet, the following stations have been heard at times: VKs 2ANF, 2LZ, 2NS, 2WH, 2RU, 2GA, 2KR, 2LG, 2HL, 2NP, 2DF, 2JY, 2XX, 2YR, 2WJ, 2VL, 2WF, 2YM, 2OA, 2DP, 2JH, 2HE, 2OK, 2BM, 2HO, 2ADT, 2ABC, 2AST, 2AJZ, 2AZK, 2AZO, 2AHP, 2ABR, 2ATO, 2ABZ, 2AYM, 2ARG.

2MQ is shifting, enough said. Where are the others? 2AWZ, 2ABO, 2XG, 2AQQ, 2AH, 2PU, 2PF, 2ALU. What about a show? There has been some activity with mobile units here of late, 2ANF, 2HL, and 2ABZ have been out with signals all round. 2JX will be on 144 soon, so keep a look out for him.

50 Mc. has been very quiet, only stations logged here were 2RU, 2ADT, 2VW, 2HE, 2JX, 2ABR, 2NP, 2ABC, 2GA, 2KR, 2ANF, and 2HO.

580 Mc. is also quiet and no news was forthcoming this month. The usuals are 2WJ, 2AJZ, 2DF, 2LZ, 2JX, 2LY and 2XX. 2LZ has heard Sydney stations from Wentworth Falls and reports S5 R8 signals, good work Con.

2HL has a new 12 element 144 Mc. beam finished. 2MQ has finished his 16 element 144 Mc. beam, hope we hear him soon. 2ANF has just finished a complete portable and mobile outfit, xtal controlled, 832 in final, also xtal cascade converter and tunable i.f. stage —all run on generators with excellent efficiency.

Please remember to pass on any news if it is of interest to you.—2HO.

VICTORIAN DIVISION V.H.F. GROUP

At the September meeting of the Group, Len Jackson and Col 3FO described their 6 mx mobile gear which was available for inspection. Of compact construction, the Tx and Rx were built into separate boxes 6" x 4" x 3". The Tx consists of a 12AU7 twin triode as an overtone crystal oscillator and doubler driving a 12J5 final with 5 watts input.

The Rx uses four tubes commencing with a 6AG5 r.f. stage and a 12AT7 as mixer and oscillator. The first i.f. amplifier is a 6SH7 at 1600 Kc. followed by a 12C8 as second i.f. stage, detector and a.v.c. A germanium diode provides an effective noise limiter.

An audio unit in a separate box 6" x 6" x 4" with speaker consists of a 12SQ7 driving a 12A6 which does double duty as a plate mod. or Rx audio amplifier.

The antenna used is a vertical co-axial dipole mounted at the rear of the car. A genemotor provides d.c. h.t. of 260v. at 80 Ma. using a 12v. battery from which 5 amps. is drawn, including filament drain. Best DX worked so far is VK2.

A discussion on field days took place and the following dates were agreed upon for the coming season: Oct. 5, Nov. 2, Dec. 14, Feb. 1, Mar. 15, Apr. 26. The October field day was arranged to coincide with the 144 Mc. field day week-end in N.S.W. 3UI, operating portable from Mt. Major, worked 2PN portable near Tumut. The line-up of Alan's Tx is a 6AG7 xtal osc. multiplier, 6AG7 dblr., 832 trblr., and 832 final with 20 watts input.

It is proposed to hold a contest commencing with the November field day, the rules to be finalised and made known later.

Efforts are continuing each evening to establish contact between VK2 and VK3 on 144 Mc. VK2 stations call, with beams towards VK3, from 8.30 to 8.35 p.m. E.S.T., and then listen for our signals during the following five minutes. Judging by the achievements elsewhere, it should eventually be possible to span these paths.

Meetings of the V.h.f. Group are held on the third Wednesday of each month at the Institute Rooms, 191 Queen St. All are invited to attend. Listen to 3WI for further information regarding meetings and field day news.—3ABA.

SOUTH AUSTRALIA

Activity seems to be increasing on all v.h.f. bands and some good work should be done this summer. 5JD has been on leave and made a visit to VK3, active on 50 Mc. 5ME heard with xtal rig on 288—p.p. 6AK5s tripler feeding the antenna was the line up; quite a good signal Sid. 5QR testing 16 element beam on 288 and now S9 plus at 5GL's; going to test it out against 5GF's corner reflector. Stations active on 144 Mc. are: 5FL, 5AJ, 5MT, 5KC, 5CA and 5GL. 5MD was heard on 50 Mc. in QSO with 5JD; a nice signal Doc. 5JD's mod. percentage is rather low.—5KL.

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK2VW	9	3
VK2WJ	13	3
VK4RY	2	2
VK4HR	4	2
VK5LC	1	1
VK6DW	3	1
VK3PG	5	1
VK3RR	6	1
VK3HT	7	1
VK2AEZ	10	1
VK3XA	11	1
VK3GM	12	1
VK3ACL	14	1
VK3ZD	16	1
VK2ABC	8	
VK2WH	15	

FEDERAL, QSL, and DIVISIONAL NOTES

FEDERAL

25th ANNIVERSARY OF E.D.R.

This year the Danish I.A.R.U. member-society, Experimenterende Danske Radioamatorer (E.D.R.), is celebrating its 25th anniversary, and appropriate ceremonies are being held.

On Saturday, 3rd August, there was a jubilee festival in Copenhagen at which a Region 1 delegate represented the I.A.R.U.

E.D.R. has been appointed by the Region 1 bureau as the committee for the "1952 All-European DX Contest" in December for which E.D.R. is issuing special certificate awards for contacts with OZ stations.

The Contest periods will be: c.w. section commences at 0001 G.M.T. Saturday, 6th December, 1952, and concludes at 2400 G.M.T. Sunday, 7th December, 1952.

Phone Section commences at 0001 G.M.T. Saturday, 13th December, 1952, and concludes at 2400 G.M.T. Sunday, 14th December, 1952.

The W.I.A. joins other I.A.R.U. member-societies in wishing E.D.R. 73 and congratulating it on its 25th anniversary. First organised in 1927, E.D.R. became a member of the I.A.R.U. in 1929 and has faithfully served the Amateurs of Denmark for twenty-five years.

21 MEGACYCLES

Although probably many other countries have since permitted their Amateurs to operate on the 21 Mc. band, the I.A.R.U. June, 1952, Calendar officially lists the following countries as having licensed Amateurs to operate there:—

Australia, Belgian Congo, Brazil, Burma, Canada, Cuba, Denmark, Dominican Republic, Ecuador, Guatemala, Iceland, Netherlands, Netherlands Antilles, New Zealand, Panama, Peru, Southern Rhodesia, United States of America, and Uruguay. England has since granted this band to G Amateurs.

LEBANESE AMATEURS ACTIVE

Amateurs in Lebanon have finally succeeded in obtaining official government sanction of Amateur Radio. The Lebanese Government has notified the I.T.U. that it no longer objects to Amateur Radio operation, and the prefix OD5 has replaced the familiar AR8.

AMATEUR BAND SUB-ALLOCATIONS THROUGHOUT THE WORLD

In accordance with a suggestion from the W.I.A., I.A.R.U. Calendar No. 44 carries a summarised chart of Amateur band sub-allocations in various countries throughout the world. This chart was compiled from information supplied to Headquarters by member-societies of the Union. Unfortunately not all member-societies responded to the request for information concerning their respective Amateur bands so Headquarters have called for any corrections and/or additions to the chart. When the complete chart is available it is proposed to publish it in "A.R." for the information and interest of all Amateurs.

NEW MEMBER-SOCIETIES TO THE I.A.R.U.

The following Societies have been granted membership to the I.A.R.U. by a majority of votes of member-societies of the Union:—

Radio Society of Bermuda (R.S.B.).

Guayaquil Radio Club (member society for Ecuador) (G.R.C.).

Deutscher Amateur Radio Club (D.A.R.C.).

Vereniging voor Experimenteel Radio Onderzoek in de Nederlandse Antillen (member society for the Netherlands Antilles) (V.E.R.O.N.A.).

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FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

Leon Paull, VK3XO, advises that cards for all contacts made by VK1NL have been despatched. Nil's log is still held by Leon.

The new address of the I.R.T.S. QSL Bureau is care EI5Z, 23 Orwell Gardens, Rathgar, Dublin, R. of Ireland.

Austine, VK3YL, advises that F8QQ and the rest of the F gang are keen to QSO VK and ZL on the 21 Mc. band. They are listening there each Sunday from 0930 to 1100 G.M.T.

The E.D.R. Denmark are sparing no pains to make the sixth All European DX Contest a success. They are issuing plenty of early publicity. A precis of the rules has already been published in "A.R." and a full copy of the rules is held at this Bureau. The c.w. section commences at 0001 G.M.T. Saturday, 6th December, and ends at 2400 G.M.T. 7th December. The phone section begins at 0001 G.M.T. on 13th December and ends at 2400 G.M.T. 14th December. This year's Contest is staged by the E.D.R. in conjunction with the 25 years jubilee of the formation of this Society. Previous countries staging this Contest were: 1947, Netherlands; 1948, France; 1949, Czechoslovakia; 1950, Sweden, and 1951, Great Britain.

Felix Franchette, FK8AC, currently on furlough in France and operating under the call sign of F3GQ, expected to commence operations from Tamaris at end of September. Felix advises he has sold his house at that location and has purchased a larger one and much better suited for radio at Sanmur. This location is on top of a hill and has plenty of grounds surrounding the house, admirably suited so he says for vee beams. He hopes to be in full blast about the end of October and remain active until his return to New Calendonia towards middle of 1953.

Robbie, of VK2QZ, is abroad again. This time he pops up from New Hebrides, under the call sign of YJ1AB. He expects to be at Vila until end of November.

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W.I.A. ACTIVITIES CALENDAR

November 1-3: "CQ's" World Wide DX Contest, C.W. Sections.

December 6-7: European DX Contest (all bands), C.W. Section.

December 13-14: European DX Contest (all bands), Phone Section.

NEW SOUTH WALES

The September meeting of the N.S.W. Division was held at Science House on Friday, 26th September with the President, Mr. John Moyle, in the chair. There was a large attendance, no doubt to hear the lecture on "Test Equipment."

The meeting was opened at 8.10 p.m., a point which aroused a little criticism later in the evening. The late start was somewhat offset by the disposal within twenty minutes of the apologies, welcome to visitors, minutes, correspondence, etc.

The lecture, which was delivered by Mr. Reg Rawlings, of Philips Pty. Ltd., was not therefore unduly delayed. It was very interesting and covered a very wide range of test equipment, perhaps too wide. Typical examples of most of the types were described briefly. Such things as vacuum tube voltmeters, valve testers, signal generators, frequency meters, audio freq. oscillators of various breeds, square wave oscillators, distortion meters, and countless types of equipment based on the cathode ray tube came under discussion. Obviously an explanation of the purposes of some of the instruments was necessary so that detail was at something of a premium. This was made up for in the discussion in which the boys soon showed their desire for details. This looked like continuing indefinitely until the Chairman had to call a halt in order that some general business could be dealt with. The lecture was well illustrated by a host of commercial test instruments which made the boys drool with envy.

A quick round-up of current Amateur events and affairs was given by the President. If you have not made a note of the **Woy Woy Field Day** date DO IT NOW. **Sunday, 16th November,** and if you leave your decision to the last minute you can pay at the door. Bring the YL or XYL and harmonics, there will be enjoyment for all. The answer to a question regarding the official organ of the W.I..A was given and nearly started another futile argument like the one at the previous meeting whence the question emanated, but the Chairman rightly squashed the argument in its infancy and called for a notice of motion to provide a basis for discussion which might lead to finality on the subject. The meeting closed at nearly 11 p.m.

HUNTER BRANCH FIELD DAY

Blackalls, Lake Macquarie, was the point to which Hunter Hams and their families headed on Sunday, 28th September, for the Branch's Combined Social and Field Day. With a beautiful day, 35 OMs plus their XYLs, YLs and harmonics congregated at the hall which was the focal point for the day's events. All present, from the very young up, enjoyed themselves thoroughly whether they were quaffing ice cream and soft drinks, chasing hidden Tx, running in a 3-legged race, or testing emission of an "813"! A novel innovation which went very well was the Tone Guessing and C.W. Competition.

The hidden Tx event was most popular, due no doubt to the fact that practically every Ham and Associate present was able to participate. The real Ham spirit was shown here, the Hunt being run in two heats (a prize for each), so that parties in the first heat loaned their Rx's to others in the second heat, the Tx meanwhile being moved to another location. Max 2OT and Secretary Dave 2EO, Ern 2FP and party, who won the first heat, announced they would give the prize to 2ZC whose gear they used—Jim could not be present because of work. Another event which provided much fun was the Ladies' Nail Driving Contest. Going on form shown by some XYLs, it won't be surprising if next time there is some shack building to be done, the hammer will be presented to the lady of the house!

SILENT KEY

It is with deep regret that we record the passing of:—

ZL1AJL-VR5GA.—Pat Spry, of Kamo Whangarei, N.Z., on 21st August, 1952, in the Auckland Hospital.

ABBREVIATION OF NOTES

The paragraph "What Do You Think" in the September issue brought forth many letters from all States including one ex-VK3-VK7 now in England.

The general concensus of opinion was that the Divisional Notes should be continued, but that all unnecessary padding should be eliminated.

Would all Contributors of Notes please endeavour to write their notes in a more concise form.

We are always pleased to see our friends the R.I's, at our functions, and this time we had the honour of entertaining the District Radio Inspector Pat Lobegier and his XYL and family, and Assistant R.I. Frank Hincks, XYL and family. It was also pleasing to have as our guest Dave 2EO and XYL representing Divisional Council, and QSL Officer Jim 2YC who was a most popular man when he arrived with a batch of DX cards for the local boys. Other visitors included Major 2RU and XYL from Gosford. Also present was Ern 2EH from Avoca and Ass. John Adkins from the "Big Smoke." Our Upper Hunter gang were represented by Geoff 2VU and family from Singleton. From the Coalfield, 2ADT, 2PZ, 2DG plus their respective families. The North Coast was also represented when 2XO's 2nd op. came along later in the day. Visitors were welcomed by President Lionel 2CS.

The credit for this grand show goes to the Committee and their assistants. Johnny 2DZ was a tower of strength, doing everything from doling out liquid refreshments to starting races; he is now expert at "drop the hanky!" Varley 2SF did stirling job registering each arrival, issuing lucky numbers, helping in bar, etc. Harold 2AHA had many tasks to keep him busy all day, chief among these being operation of the 144 Mc. hidden Tx, his helpers in this being Norm 2ANA and Associate Dave Ellsey. Bill 2AXM did a good job maintaining a 40 mx link from the hall to the hidden Tx with his 3¼w. special. General all round help, especially provision of p.a. gear was given by Ken 2KG. Thanks are also due to Neil 2XY who provided the 144 Mc. Tx, to Treasurer 2XT for his "XT

Special" brew, to Frank 2FX and Station 2KO for the tone c.w. recording, to Bert Harvey for operating the film projector by courtesy A.G.E. Newcastle, to John Cowan for his piano playing, and to all who gave a hand.

At the conclusion of events, prizes were presented to the following winners by President Lionel Swain:—

Transmitter Hunt: 1st Heat—1st, 2EO, 2FP, 2OT and party with 2ZC's gear, time 5 min.; 2nd, 2DG, 2ADT and party with 2VU's gear. 2nd Heat—1st, 2DG and party using 2VU's gear, time 7 min.; 2nd, F. Hincks Asst. R.I. and party with 2ZC's gear; 3rd, 2NX and party with 2AHA's gear. Tone Guessing—1620 Cycle Tone: 1st, 2KG, 1600; 2nd 2AGD, 1650. C.W.: 2EO 1st. Lucky number prize of two speakers won by XYL of Associate Les Sparke. Ladies' Nail Driving: 1st, XYL 2AGD; 2nd, XYL of 2AHA. Women's Race: 1st, XYL 2DG. Visitors' Race: 1st, Valerie Fitton; 2nd, Judy Cowan. Three Legged Race won by 2AHA's XYL and 2FP's daughter. Boys' Race: 1st, Barry Rudkin.

SOUTH WEST ZONE

Noel 2OJ at Albury heard on 80, also Don 2RS. Ron 2PM at Canberra reports all Hams there are interested in the new club, which has about 40 members. The call sign of the club is 2ACA. Peter 2APP changing all his gear, says he is sick of the look of his old set-up. 2PL at Griffith active on 40 and still trying to collect new Hams at Griffith, good luck Stewart. 2BQ at Tumut heard on 80 with very solid signal. 2APZ at Leeton active once more on 40 and 80 after having considerable trouble with his AT5, it is good to hear you again Ray. 2RH at Yerrinbool active on 20, 40 and 80, Ron can be heard "earbashing" on 80 most evenings with the usual gang. 2AJO active on 80, 40, 20 and still trying to break through on 144 Mc.

COALFIELDS AND LAKES ZONE

The latest activity from 2ANU is concerned with coaxing (either interpretation of the word applies) energy from an oscillator on 288 Mc. into an antenna system. 2VU is now set up to work straight on 144 Mc. and is only waiting a suitable opportunity to become a piece of DX for the gang. 2ADT has been keeping one eye on 21 Mc. and is slowly gathering them in. Had a nice session with Europeans one evening recently. 2YL feels like coming on, but can't find the time. 2PZ still working on 7 Mc. and planning other gear. 2KF has been heard on 7, 14 and 144 Mc., but no sign of 2KZ.

Major 2RU is another one interested in 21 Mc. and works them when they are there. He is forced to work 2ADT via Perth on that freq. 2AEZ has joined the old men on 3.5 Mc. together with 2EH who has now progressed to the stage of operating with the charging system running. This last fact accounts for the sudden shortage of 0.1 uF. condensers in the various warehouses. 2KR and 2GA are still keeping their area on the map on 144 Mc. The zone was represented at the Hunter Branch Field Day by 2VU, 2PZ, 2RU and 2ADT, all with their families. On this occasion, 2VU gave his portable gear its maiden run in the 144 Mc. Tx hunt with successful results in both heats.

HUNTER BRANCH

September was a very busy month for those organising Branch activities. Thanks to the hard work of our Committee and their assistants, the Field Day/Social went off with great fervour. Details are given elsewhere in this issue, and a report on the Maitland meeting has appeared in the Bulletin.

President 2CS pleased with his "flickuva-switch" all-band (including 21 Mc.) exciter; Lionel only needs a final now! Two more certificates to DX specialist 2DG, Keith received Certificate No. 31 for Worked All Japan, and a beautiful hand made silk Certificate of Merit for working all Swedish Districts; XYL has her eye on latter for scarf! Other Maitland men 2XQ and 2ANL mainly active for scheds on 80 and 20 respectively. Harry 2AFA pleased at receiving QSLs for both his KL7 contacts on 40 mx c.w. 2AGD's Tx doesn't need a good antenna; although his dipole only few feet high, George beat all VK competition for S8 report from CN8 on 20 mx phone. 2KG one of our keenest members; Ken always helpful and co-operative at Branch functions. Valuable behind the scenes assistance is also given by Frank 2FX. These things are appreciated by the Committee which is always grateful for help given.

The bug bit 2AWD again, Arch put f.b. sig on 40 from his xtal controlled 10 watter. Ivan 2IS also came out of moth-balls for brief session. 2TE on again too; Bert can still get S9 from DX land on 20 mx phone. Merv 2AAM yarned to 2PQ on 20—tried to interest Tom in 2 mx, but latter wants to finish his all-band exciter. 2PJ has new e.c.o., built n.b.f.m. unit for 80, and replaced 6V6 mods. with 807s. 2AGY working plenty of Europeans on 20 mx c.w. 2CN feels lackadaisical after VK4 holiday. 2WP pays us nice compliment; says spirit of Hunter has enticed him to join W.I.A. Bill's TA12C got him f.b. report from OA4 on 40 mx. 2XY working on Branch's Tx—among others! Doug 2ADS pleased with improved reports on 144 since adjusting the feeder on his 3/3 beam.

Ernie 2FP has the AR8 alongside bed now—frightened he'll miss something! 2KQ starting to organise in new shack; Jack using temporary antennae on 80 and 6 mx. 2ANA received a shock when his harmonics sprang a surprise party for his Silver Wedding Anniversary. All extend congrats. to Norm and XYL Phyllis. 2AXM's "Mighty Midget" Tx getting Bill S9 reports from all States. Max 2OT has a 40 mx Rx on car dashboard which really drags 'em in. The Field Day has given 2NX added enthusiasm to get on air again. Best of luck to

JANUARY ISSUE

This time every year a plea is made to Advertisers and Contributors to forward copy early for the January issue.

To explain once again—as the printers close down for annual holidays from just before Xmas until the middle of January, it is necessary—if the magazine is to be posted to you on the 1st of January—for the magazine to be printed before Xmas.

Therefore it is requested that material for the January issue must be in the printers' hands by the FIRST of DECEMBER.

Your co-operation in this matter will be much appreciated.

—Editor.

Associate "Speaker" Sparke who sits for A.O.C.P. this month. Treasurer 2XT's 2nd op. showing an interest in Ham Radio already—especially mobile gear! Developing a real DX fist is Secretary 2SF; Varley now receiving some nice QSLs for his 40 mx c.w. efforts. 2AFS doesn't fancy using his present Tx—Bob reading mail with his BC348. Harold 2AHA and Jim 2ZC cranked up for VK-ZL Contest. 2BZ busy shifting but put sig on 40 to QSO 2XX/P, an old v.h.f. cobber. Gordon 2CI re-appeared on 40, been QRL. 2ASJ enjoyed himself at Murwillumbah thanks to 2ZY and 2RK. Fellow plane passenger was QSL Officer 2YC—plenty Ham talk!

Notice of Meeting.—The last meeting before the Xmas Social, and last for 1952, will be held at Technical College, Tighes Hill, on Friday, 14th November. Listen to 2WI for details. An early warning! This year don't fail to notify Secretary of composition of your party for Xmas Social so we can cater accordingly. Please advise number, sex, and age of harmonics—that is most important.

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VICTORIA

CENTRAL WESTERN ZONE CONVENTION

Horsham, 21st and 22nd September

As 3YW, our faithful Zone Secretary for the past five years, insisted on retiring this year, please excuse if these zone notes are not compiled with the same literary genius as before. However to get to business, the Zone Convention was held at Horsham accompanied by warm pleasant weather. The Saturday afternoon arrivals, easily distinguished by their whip antennae, congregated at 3TA's where general ragchew took place. After tea the boys systematically set about finding the weak spots in Byron's rig, while some of the quieter element retired to the lounge to lap up high quality microgroove and tape recordings with a few films indispersed. After supper, kindly supplied by Mrs. Hardinge, the boys retired for a few hours rest before the big day following.

1200 hours on Sunday saw a large collection of cars, antennae, and Hams. After more ragchew, the gang proceeded to lunch. Conclusion of lunch saw re-assembly at the recreation hall and the start of the hidden Tx hunt. Upon finding the signal, cars then proceeded to all points of the compass around Horsham. After much coming and going and completely losing and finding the signal, your scribe 3ATR arrived down a lane in time to see 3ACI doing a fine 100 yards sprint ahead to find the elusive Tx concealed under a tree. At conclusion of Tx hunt a scramble contest for portable Tx was held. Six stations participated for a very busy hour, the honours going to 3AGD working three States.

During the Tx hunt and portable scramble, a visit to b.c. station 3WV was enjoyed by all those not taking part in other events. Later on after an enjoyable tea, the gang retired to 3TA's lounge for the annual meeting.

Office-bearers elected were as follows:—3AKW President, 3TA and 3ARM Vice-Presidents, 3ATR Secretary-Treasurer, 3AKD, 3ATR and 3YW Committee. A motion of appreciation to Cec. 3YW was recorded for his fine service as Zone Secretary for the past five years. Zone hook-up was arranged for the low end of 80 mx at 2030 hours every Wednesday evening. It was resolved at the meeting to endeavour to increase interest in zone activities and to that end field days and outings will be held throughout the year.

Present at the convention were 3TA, 3AKR, 3AKA, 3ACD, 3NN, 3RR, 3II, 3AFO, 3ATR, 3ARM, 3ND, 3ARB, 3IB/3ACI, 3DP, 3EF, 3AKW, 3AV, 3VA, 3AID, 3ALQ, 3AUT, 3GR, 5AZ, 3ASV, 3AMH and a number of XYLs. When all business was concluded a number of technical films were screened which were appreciated by all. The Convention was rounded off with supper by courtesy of Mrs. Hardinge. There is a prize for best zone hook-up attendance, so don't forget it every Wednesday night on 80.

NORTH EASTERN ZONE

Syd 3CI is shifting his rig out on to the back verandah. Doug 3DW is moving down to Lilydale. Former PA0YX and PA0HC have come to live in the zone at Merrigum. Alan 3UI is doing a little house painting in his spare time as well as radio and driving a new car. Ken 3KR was still working the DX when last heard and has added fifteen new countries to his list in about six weeks. The latest from Ken is that the DX has faded a bit though. Rex 3UR is still on 80 mx. Jack 3PF was using only nine watts on the September hook-up. Tom 3TS has fitted a trolly lift to his beam tower to simplify the making of adjustments. Jim 3JK has gravitated to 2 mx now. Keith 3JC put his 20 mx beam up with the director in the wrong place, but it is working well now it is in the right place.

GEELONG AMATEUR RADIO CLUB

The meetings of the club during September were well attended. A new member to the club was Mr. J. Barber, who travels 10 miles from Mt. Moriac to attend the meetings. A visitor to the club also was Mr. W. Barker, who was welcomed by the President, 3IC, who introduced him to each member present. A lecture was given by 3ABK whose subject was "Cathode Ray Tubes," he used the blackboard and a cathode ray tube to illustrated his lecture and explained the construction and the function of each element of the tube. The lecture was recorded on tape by 3BU and if suitable will be transferred to microgroove. The Exhibition, which was to be held in October, has been postponed.

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QUEENSLAND

NORTHERN NOTES BY VK4EL

Not so much activity to report this month as a lot of the lads are still not using the bands much. Seeing that our old friend Frank 4QL has, like the Arab, folded his tent and stolen silently away (having transferred back to VIS), I may be permitted to give the state of the bands as I find them here at Clevedon. **7 Mc.** very patchy, some Europeans workable around 1500 to 1800 E.A.S.T.; however after about 2000, commercials, both phone and c.w., seem to move in and take over the band, even the BBC has a European transmission in at 7.13 Mc., and Asiatic phones are getting more numerous daily; it is hard to find a place to park for a good "phone natter" in the evenings. **14 Mc.** is by far the best band, both for local and DX working, Europeans abound between 1600 and 1900 and again between 2300 to 0200 when it is easy to work all parts of Europe on phone and c.w. and get up to S9, in fact just like old times. **21 Mc.:** This band showed some promise early in the month when Africa (VQ4 and ZS) was worked around 1700-1800 and then Europe came through a couple of nights between 1930-2100, but this didn't last and the band is very mediocre again now. **28 Mc.:** Worst of the lot, only a couple of KH6 and Ws heard for the month, didn't even trouble to put the Tx down there.

Andy 4BW still keeping his skeds going with Harry 4HK, but complains of inability to tie in with the Emergency Link, is very keen to be in it, also been trying his luck on 14 Mc. lately. Harry 4KW on 7 and 14 Mc., but reports conditions poor, keeps a lunch-time sked with your scribe on 7 Mc. Bill 4BQ QRL constructing a new 2 element beam, but just you wait until the job is done, then DX look out. John 4FH still fully occupied with other things than Ham Radio, reckons he spends 1 per cent. of his spare (?) time on Ham Radio. Bill 4AM staging a comeback and very nice to hear of the old timers combing the cobwebs out of the gear (and ziff). 4KR now farming instead of hamming, still we hear it won't be long before the bug (radio) bites again. Joe 4JH has a new all-band-switched Tx 3.5 to 50 Mc., will be operating soon he says.

Lennie 4GD has disposed of all his gear except the 50 Mc. gear, will be on that band when the barrier goes up for the current season. Eddie 4WH has re-appeared from his new QTH and with a brand new band-switched job from 3.5 to 50 Mc., also sports a new 2 element beam that seems to be working okay; Eddie keeps me company on 21 Mc. some nights. Jock 4DE getting amongst the Europeans in the wee small hours, guess this northern QTH a bit better than the Ipswich one eh Jock? Wally 4RU has a new rig also; when I met him in town the other day he said something about getting expensive tastes after visiting some of the National Regional stations, it is certainly reflected in the beaut. new rig he has.

Ted 4EJ actually making a comeback at long last, tells me he hopes to be on in a month or so, so may have something to report on his activities on this page next month. Other stalwarts in the shape of 4RW, 4BE, not heard lately. Although we lost Frank 4QL, we have gained another in Harry 4HV, late 1HV; he has just arrived back complete with new Tx, so look out for a hefty signal from a reconstructed AT5. 4EL, gee that's me, oh yes, well not much to report, but have renewed my marathon skeds with Ralph G5ZA at long last, and other than making the first VK-VQ4 contact on 21 Mc. a few weeks ago, really nothing, mainly keeping skeds on phone and c.w. and giving new Gs their 1st VK contact. Anyone missed out, please shoot along their doings to me care 4QN.

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held in the club rooms to a slightly smaller gathering than usual, 84 members to be exact, plus a few visitors. The guest speaker, Mr. I. Thomas (5IT) gave a talk about his trip to Hawaii and the W6 area of the U.S.A. "Tommy," as he is better known, made his talk last for one hour and three-quarters, but he could have gone on for another hour or so without losing the interest of his listeners one little bit. In my many years of attending meetings of the VK5 Division I can safely say I have never seen such an intent audience and I have never seen or heard a speaker who so obviously enjoyed his task as did "Tommy."

The vote of thanks was ably proposed by Les 5UX who echoed the sentiments of the meeting when he said that "Tommy" not only deserved the thanks of the meeting for his interesting talk, but also for the excellent ambassador for VK5 that he must have made. The applause that greeted the proposal of thanks gave sufficient indication of the appreciation of those present.

Among the welcome visitors were Messrs. W. Mann, Tom Welling (5TW) from Mt. Gambier, and "Uncle Xray" from Kulpara.

Very little general business came up for discussion, although a long discussion took place regarding the Xmas Social and the intention of Council to replace it with a Social Evening on the December general meeting night. The idea of a social evening in the club rooms to which all those attending should bring a basket of "tucker," the Division to provide the tea, coffee, cocoa, etc., appealed to all, although quite a few present thought that it would be a good idea to include the ladies in the evening. This idea of the ladies was decided against until the success or failure of the social evening was proved, although Council was directed to go into the matter of the YL, XYL, and children side of the question when considering the social activities of the Division. This angle is well worth considering, and I feel sure that Council will give it its usual prompt consideration.

Mr. J. Jones, 2JJ, passed through Adelaide this month and paid a flying visit to the Secretary, Reg 5RR; and another visitor to our fair city was none other than Herb Stevens, 3JO, with whom I had the pleasure of a few minutes chat at the QTH of Hal 5AW. I think that he was somewhat disappointed with me as he expected me to look like a rednosed vaudeville comedian with funny ha ha's flowing from my dainty lips. Mind you I am not one to gossip, but he was in VK5 spending his honeymoon, although now that I come to think of it he did say to me that I was not to mention it in the notes, so perhaps I had better not mention it.

At the moment of writing, if rumours can be believed, VK6 appear to be favourites for the R.D. Contest and I am very pleased to hear this. The only thing that I am not happy about is that if this rumour should be confirmed, then that character from Geraldton will in all probability be sending me a letter of a gloating nature, and that would be too much to take this month, on top of the suggestion in the magazine that personal notes might be cut out in the future. Please have pity dear Editor, how can I support my wife and eleven children if my salary from "A.R." should cease.

5KU has his beam functioning on 20 mx and is very pleased with the results. 5FD has another Tx using an 813 in the final. John complains that the final tank coil gets a little hot after a short run which does not augur well for Colin (5CJ) who has a building block very near to the QTH of John. 5TW has returned from his well-earned holiday in the city and now has a new exciter unit, is expecting to get on 2 mx any day. 5CH is rapidly settling in at the new location and has been seen measuring the yard with that thoughtful look on his face that goes with something different than gardening. Claude still manages to get on 2 mx each Monday evening.

5JA is also heard on 2 mx occasionally and is rewinding his main h.t. power tranny. 5MS is busy settling in but has had time to erect, or should I say, re-erect his tower and also sort out some gear. 5CJ is supposed to be on holidays, but when you know that on 16th September he became the proud father of a beautiful daughter, the word holidays seems a little superfluous. What is the little darling's name Col, and congrats. from all. 5BC has returned from a caravan tour of Victoria-Melbourne to Sydney-Canberra-back home via Mildura. Hughie says that his nerves are a little steadier now. He met a number of his 50 Mc. friends in and around Sydney and stayed with 2ABC for a night, or was it a couple of nights? Hughie had a wonderful time and met quite a few good Hams. 5RE is still active but only on Sundays. 5TL is very active, in fact his XYL is threatening to put an axe through his gear if he doesn't get active in the garden, hi, hi. 5CF has been having trouble with gremlins, to wit, "hum" trouble, but Mur-

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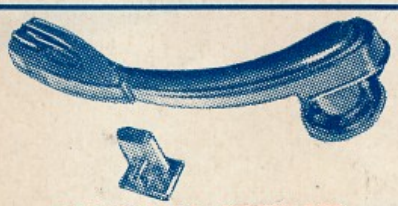

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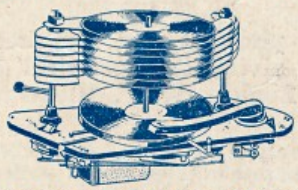

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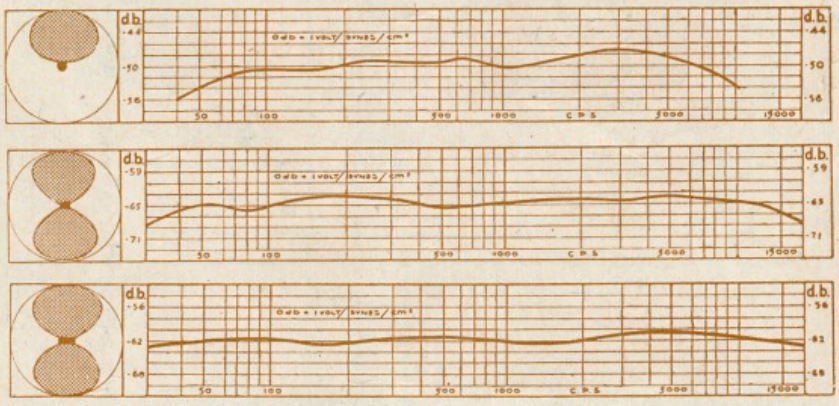

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